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TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1911.

No. 83.

THE LINCOLN GAS AND ELECTRIC LIGHT COMPANY,
APPELLANT,

vs.

THE CITY OF LINCOLN ET AL.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR
THE DISTRICT OF NEBRASKA.

FILED JULY 2, 1909.

(21,744)

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1 Volume One.

Pleadings.

2 In the Circuit Court of the United States for the District of
Nebraska, Lincoln Division.

No. 10, Docket A.

THE LINCOLN GAS & ELECTRIC LIGHT COMPANY, Appellant,
v.
THE CITY OF LINCOLN, FRANCIS W. BROWN, Mayor, and EDMUND
C. STRODE, City Attorney of said City of Lincoln, Appellees.

Appearances:

Halleck F. Rose and Edmund C. Strode, for Appellant.
John M. Stewart, City Attorney, for Appellees.

Pleas before the Honorable William H. Munger, Judge of the Dis-
trict Court of the United States for the District of Nebraska,
sitting in the Circuit Court of the United States for the District
of Nebraska, within the eighth Judicial Circuit, at the October,
1908, Term of the Lincoln Division of said court.

3 United States Circuit Court, District of Nebraska, Lincoln
Division.

No. 10, A.

THE LINCOLN GAS & ELECTRIC LIGHT COMPANY
v.

THE CITY OF LINCOLN et al.

Præcipe for Transcript.

To the Clerk of said Court:

Please prepare transcript for the United States Supreme Court in
the above entitled cause, and include therein the following:

Bill of complaint,
Notice of filing of bill,
Restraining order,
Præcipe for chancery subpoena,
Chancery subpoena with return of marshal,
Bond on restraining order,
Certified copy restraining order, with return of marshal,
Answer of defendants,
Motion of respondents to submit action on complaint and an-
swer, with notice,

Objections to allowance of respondents, motion,
 Replication to answer,
 Testimony on behalf complainant, with exhibits,
 Motion to modify restraining order, with notice,
 Testimony on behalf defendants, with exhibits,
 Stipulation as to facts,
 Journal entry of case argued and submitted,
 Memorandum opinion,
 Decree,
 Motion to modify opinion,
 Motion to modify decree,
 Petition for allowance of appeal by complainant,
 Assignment of errors,
 Order overruling motions to modify decree and opinion,
 Order allowing appeal,
 Bond on appeal, with approval,
 Citation, with acceptance of service,
 Application for extension of time,
 Order extending time to perfect appeal,
 Motion for substitution of party defendant,
 Copy of proceedings of Lincoln City Council,
 Security for costs.

(Signed)

E. C. STRODE,
Solicitor for Complainant.

Dated this 19th day of June, 1909.

Indorsed: No. 10, Doc. A. Praeipe for Transcript In Appeal.
 Filed Jun. 19, 1909. Geo. H. Thummel, Clerk, by J. H. McClay,
 Deputy. A. D.

4 Be it remembered, that on the 27th day of December, 1906,
 bill of complaint was filed in the clerk's office of the circuit
 court, which said bill of complaint is in words and figures following,
 to wit:

In the Circuit Court of the United States for the District of
 Nebraska. In Chancery.

No. 159, Docket X.

THE LINCOLN GAS AND ELECTRIC LIGHT COMPANY, Complainant,
 vs.
 THE CITY OF LINCOLN, FRANCIS W. BROWN, Mayor, and EDMUND
 C. STRODE, City Attorney of said City of Lincoln, Defendants.

Bill of Complaint.

To the Honorable the Judges of the Circuit Court of the United
 States in and for the District of Nebraska:

The Lincoln Gas & Electric Light Company, a corporation
 organized under the laws of the State of Nebraska and a citizen of

said state, brings this, its bill of complaint, against the City of Lincoln, Francis W. Brown, Mayor, and Edmund C. Strode, city attorney of said city, all of whom are citizens of the State of Nebraska.

And thereupon your orator complains and says the amount in controversy herein, exclusive of interest and costs, exceeds the sum and value of \$2,000, and this case arises under the constitution and laws of the United States.

Your orator, the Lincoln Gas & Electric Light Company, is a corporation organized on or about the first day of December, 1901 under the laws of the State of Nebraska, having its principal place of business at the City of Lincoln in Lancaster County; and by its articles of incorporation it has, among others, the following powers:

5 The general nature of the business to be transacted by this corporation shall be to acquire, by purchase, grant, or otherwise, and to own, hold, maintain and operate suitable grounds, buildings, machinery, apparatus, appliances, pipes, mains, services, wires, poles, and other structures for the manufacture and distribution of gas and electricity for the purposes of light, heat and power, and steam for the purpose of heat and power; to erect, maintain and operate proper and suitable buildings, works, machinery, apparatus and appliances for the manufacture, purification and distribution of gas and electricity for light, heat and power and steam for the purpose of heat and power; to purchase, acquire, own, hold, lay, erect and maintain within the corporate limits of the City of Lincoln, Lancaster County, Nebraska, and in the territory adjacent thereto, in, upon, over and under the streets, highways, lanes, alleys, public grounds and sidewalks thereof or any future additions which may be made thereto, mains, pipes, services, wires, posts, poles, towers, and other structures and appliances necessary or desirable for the distribution of gas or electricity for light, heat or power, and of steam for the purpose of heat and power, and to purchase, hold, operate and acquire franchises from the City of Lincoln for any or all of the purposes aforesaid. This corporation shall have power to borrow money and issue its bonds, debentures and other evidences of debt therefor and to pledge the whole or any part of its properties, rights and franchises for payment thereof, and may sell, assign or convey all or any part of its properties, rights or franchises. And your orator has power to do all things so enumerated in its articles of incorporation and all things incident to the business and powers so enumerated and defined.

After your orator's organization and on or about the 19th day of December, 1901, and after it had duly complied with all the laws of Nebraska requisite to such organization to entitle it to enjoy all the privileges and immunities of a corporation, it acquired by purchase all of the rights, privileges, immunities, franchises, properties, real and personal, good will in business and rights in
6 action of the Lincoln Gas & Electric Company, also a corporation, theretofore duly organized under the laws of Nebraska, which rights and properties were, for a full and adequate

consideration paid, duly conveyed by said last named corporation by a deed in writing, duly executed.

The said last named corporation, The Lincoln Gas & Electric Company, at the time of so conveying its said rights and properties to your orator, had power to own, hold, maintain, and operate and did so own, hold, maintain, and operate suitable grounds, buildings, machinery, apparatus, appliances, pipes, mains, services, wires, poles, and other structures for the manufacture and distribution of gas and electricity for light, heat and power in the said city of Lincoln, Nebraska, and the territory adjacent thereto, under privileges and franchises theretofore granted by the defendant the City of Lincoln, and had power and authority to sell, assign and convey all of its said properties, rights and franchises.

Your orator further shows unto your Honors that the privileges and franchises so enjoyed by the said last named corporation, The Lincoln Gas & Electric Company, and acquired by your orator by the purchase and conveyance aforesaid, were originally granted by the defendant city of Lincoln on or about the 12th day of March, 1872, unto the Lincoln Gas Company, a corporation duly organized under the laws of Nebraska, by an ordinance that day duly passed by the city council of said defendant, and approved by its mayor, and published in accordance with the law, which was and is in the words and figures following:

"An Ordinance Granting the Use of the Streets, Lanes, Alleys, Public Grounds and Sidewalks, in the City of Lincoln, to the Lincoln Gas Company.

"Be it ordained by the mayor and councilmen of the City of Lincoln:

"Section 1. That license and permission be and the same are hereby given and granted to the Lincoln Gas Company of Lincoln,

Nebraska, to erect, construct, and complete gas works within the corporate limits of the City of Lincoln, aforesaid; and that said Company is hereby authorized and permitted to use and occupy the streets, lanes, alleys, public grounds and sidewalks of said city, for the purpose of laying down and repairing all pipes and other fixtures for conducting gas for light in and under the streets, lanes, alleys, public grounds and sidewalks of said city, or any future addition which may be made thereto.

"Section 2. The said Lincoln Gas Company shall have the exclusive right and privilege of furnishing illuminating gas in said city for a period of twenty-one years from the 9th day of March, 1872, and of using and occupying the streets, lanes, alleys, public grounds and sidewalks for the purposes specified in the first section of this ordinance.

"Section 3. The said Lincoln Gas Company shall manufacture and constantly supply (unavoidable delays and accidents excepted) the city and inhabitants of Lincoln, on streets where gas main-pipes are laid, with good quality of illuminating gas, at a price not to exceed five dollars per one thousand feet.

"Section 4. This ordinance is to take effect and be in force from and after its publication according to law."

It was the purpose and intent of the said defendant, the City of Lincoln, by the passage of said ordinance, to grant unto the said The Lincoln Gas Company, the perpetual enjoyment and use of all the franchises, rights and privileges to use and occupy the streets, lanes, alleys, public grounds, and sidewalks of said city for the purpose of laying down and repairing all pipes and other fixtures for conducting gas for light in and under the streets, lanes, alleys, public grounds and sidewalks of said city or any future additions which may be made thereto, and in addition thereto, and as an inducement to said corporation to accept the said privileges, to grant unto it the exclusive right and monopoly of said business within the said city for a term of twenty-one years from the 9th day of March, 1872.

And your orator further shows unto Your Honors that afterwards, by an ordinance duly passed by the city council of the defendant the City of Lincoln, June 16, 1890, and approved by the
8 mayor and published as required by law, section 1 of the ordinance aforesaid was by defendant city amended so as to greatly enlarge and extend the privileges originally granted, and in its amended form was re-enacted so as to vest all of the original franchises, rights and privileges, as so extended and enlarged, in the said corporation perpetually and without limitations, and by such amendment, section 1 of said original ordinance was made to read as follows:

"Section 1. That license and permission be and the same are hereby given and granted to the Lincoln Gas Company of Lincoln, Nebraska, to erect, construct, and complete gas works within the corporate limits of the City of Lincoln aforesaid; and the said company is hereby authorized and permitted to use and occupy the streets, lanes, alleys, public grounds and sidewalks of the said city, for the purpose of laying down and repairing all pipes and other fixtures for conducting gas for light, fuel and heat, in and under the streets, lanes, alleys, public grounds, and sidewalks of said city, or any future addition which may be made thereto, and to establish, construct, acquire, maintain, own and operate within the corporate limits aforesaid of said city of Lincoln, the necessary buildings, works, machinery, appliances, and structures, for the purpose of furnishing and supplying electricity for the purpose of illuminating and power for moving machinery and vehicles and erect, acquire, own and maintain within the corporate limits aforesaid, and in and upon the streets, lanes, alleys, public grounds, and sidewalks space of said city, or any future addition which may be made thereto, wires or other conductors of electricity for conducting electricity for illuminating or power purposes, and to erect, acquire, own, establish, and maintain within the corporate limits aforesaid, and in and upon the streets, lanes, alleys, public grounds, and sidewalks space of said city or any future addition thereto, posts, poles, towers, and
9 other structures and appliances for the support of such wires or other conductors of electricity. Provided, That such posts, poles, towers and other structures and appliances, including

wires and conductors of electricity, shall be so erected and placed as not to obstruct the use of said streets, lanes, alleys, public grounds, and sidewalk space for the purpose of travel."

Your orator further shows unto Your Honors that the defendant, the City of Lincoln, subsequently and on or about the 30th day of April, 1900, after the term of the monopoly of said Lincoln Gas Company had expired, by an ordinance then duly passed by its council and on May 2, 1900 approved by its mayor and published in accordance with law, again amended section 1 of said original franchise ordinance so as to extend and enlarge the privileges, rights and franchises granted thereunder by making the same negotiable, vendable and assignable, and as so enlarge again re-enacted the said grant of franchises, rights and privileges unto said Lincoln Gas Company perpetually and without limitation as to time, and said section 1, as so last amended, was made to read as follows:

"Section 1. That license and permission be and the same are hereby given and granted to the Lincoln Gas Company, of Lincoln, Nebraska, its successors and assigns, to erect construct, and complete gas works within the corporate limits of the city of Lincoln aforesaid; and the said company is hereby authorized and permitted to use and occupy the streets, lanes, alleys, public grounds and sidewalks of the said city, for the purpose of laying down and repairing all pipes and other fixtures for conducting gas for light, fuel and heat, in and under the streets, lanes, alleys, public grounds, and sidewalk, of the said city, or any future addition which may be made thereto, and to establish, construct, acquire, maintain, own, and operate within the corporate limits aforesaid of said city of Lincoln, the necessary buildings, works, machinery, appliances, and structures for the purpose of illumination and power for moving machinery

and vehicles, and erect, acquire, own and maintain within
10 the corporate limits aforesaid, and in and upon the streets, lanes, alleys, public grounds and sidewalk space of said city, or any future addition which may be made thereto, wires, or other conductors of electricity, for conducting electricity for illuminating or power purposes, and to erect, acquire, own, establish and maintain within the corporate limits aforesaid, and in and upon the streets, lanes, alleys, public grounds, and sidewalk space of the said city, or any future addition thereto, posts, poles, towers, and other structures and appliances for the support of such wires or other conductors of electricity: Provided, That such posts, poles, towers, and other structures and appliances, including wires and conductors of electricity, shall be so erected and placed as not to obstruct the use of said streets, lanes, alleys, public grounds, and sidewalk space for the purpose of travel."

Your orator further shows unto Your Honors that after the passage of the last aforesaid ordinance, and on or about July 1, 1900, the said Lincoln Gas Company, for full value to it paid, sold, assigned, transferred and set over unto the Lincoln Gas & Electric Company all its franchises, rights and privileges so as aforesaid granted to it by the proceedings and ordinances aforesaid, together with all its properties and all its good will in trade and business,

all its rights in action, and all its rights, privileges, immunities and franchises whatsoever, and duly conveyed the same by deed in writing, duly executed, to the said Lincoln Gas & Electric Company, from whom, as aforesaid, your orator has since acquired them by purchase; so that your orator is now possessed of all of the franchises, rights, privileges and immunities so as aforesaid granted unto the said corporation, the Lincoln Gas Company, and good and lawful title to all thereof perpetually and without limitation as to time is now well vested in your orator as successor by and through the aforesaid mesne conveyances.

11 Said original ordinance, as so extended and enlarged by the aforesaid amendments, with all the rights, privileges, and franchises thereby conferred by the defendant city, is and since passage thereof has been operative and in full force and effect in law, and your orator, on its part, and its predecessors, from whom your orator derived title thereto, on their part, have fully performed all of the duties and obligations thereby imposed upon it and them, and thereby the said city of Lincoln has agreed to and with your orator that for performance of the duties thereby imposed it shall have full right to enjoy all of said privileges, and to receive and collect for the services so required to be rendered by your orator reasonable prices and rates of compensation within the limitation prescribed by said grant of \$5.00 per thousand feet for gas, and particularly that your orator shall be entitled to collect and receive such reasonable prices and rates as will yield it a fair compensation for the service rendered, taking into consideration the cost and value of its properties employed therein, and the customary, ordinary and necessary wear and tear and depreciation of its appliances, machinery, plant and equipment from its use in said business, and the capital employed therein, and the reasonable and necessary cost of operation and maintenance.

Your orator further show unto Your Honors that the duties by the aforesaid ordinance imposed upon it and the acceptance, use and enjoyment by your orator of the rights, privileges, and franchises thereby granted, required of your orator's predecessors and of your orator the permanent use, investment and employment of large sums of money for purchase of lands and the erection, construction and equipment of a manufacturing and distributing plant for supplying the said city and its inhabitants with gas for fuel and light, heat and power, and for increasing its capacity and extending its facilities for distribution from time to time to meet the demands of the public in a developing and growing city.

12 The properties owned by your orator and necessarily employed in equipment for manufacture, storage and distribution of gas and for performance of its duties imposed by the terms of such grants or rights, privileges and franchises, consist, among others, of a block of ground, described as Block Seventy-nine (79) in the City of Lincoln, and other real estate contiguous thereto, on which was erected at great cost permanent buildings equipped as a manufactory, and gas tanks or holders for storage of gas, many miles of gas mains and service lines extending from mains to the curb lines

laid under the streets, many of which are improved by permanent pavements, and stop boxes, and meters, horses, wagons, work shops, tools and appliances and supplies and offices and office furniture and the like. To operate said plant and to maintain and keep the same in repair, requires employment of a large force of workmen and clerks, many of whom are required to be skilled, and to all of whom it is necessary that your orator pay exceedingly high wages. The depreciation by wear and tear and other unavoidable causes in machinery, equipments, appliances and properties amounts usually, ordinarily and necessarily, for the uses to which they are put, to ten per cent each year of the entire value of your orator's properties employed in said enterprise, which is eventually to be accounted for and restored in order to maintain the efficiency of your orator's equipment. It is necessary in laying mains to make a joint on an average of every two feet, and in the many miles of mains necessary for the distribution of gas, the great number of joints is an unavoidable loss of gas equalling in the aggregate twelve per cent of the gross amount manufactured. The consumption of gas in said city is necessarily small in comparison to the number of miles of mains, due in part to the great width of the public streets and in part to the fact that no considerable district or portion of the City of Lincoln is compactly built and the services actually in use are scattered over a large territory. The defendant, the City

13 of Lincoln, has for a long time past, by ordinance, required your orator to lay mains through all the streets that are paved or to be paved within any paving districts created or that may hereafter be created in said city, and to carry gas services from such mains to and inside the curb line on each lot frontage on said streets without regard to consumption or probable consumption of gas on such lines, and such mains and services have, at great cost and expense, been laid by your orator in all paved streets, under compulsion of said ordinance.

Your orator further shows unto Your Honors that it and its predecessors in ownership of the said rights, privileges and franchises have, pursuant to the invitation of the defendant city contained in the ordinance aforesaid and in faith of the rights, privileges and franchises so granted, and in order to discharge the public duties thereby imposed upon it and them, have expended necessarily in building and equipping said plant more than \$1,000,000, and that your orator has valid outstanding obligations secured by conveyance by trust deed, of all its properties, rights and franchises, executed by your orator and your orator's predecessor, the Lincoln Gas Company, and sold for value to and now held by good faith purchasers, in form of negotiable bonds, aggregating \$1,200,000, of which a prior issue, executed by the said Lincoln Gas Company, amounting to \$333,000, by their terms bear semi-annual interest at the rate of six per cent, and the residue thereof bears interest payable semi-annually at the rate of five per cent per annum, and that the proceeds of all of said bonds and large amounts of additional capital were and are actually applied and employed in the acquisition and equipment of your orator's plants and properties necessary to carry on its said business.

and largely and principally in its plant and equipment for the manufacture and distribution of gas.

Your orator further shows unto your Honors that the defendant, the city of Lincoln, disregarding the contract rights, privileges and immunities of your orator, under the aforesaid franchises, to receive, collect and enjoy such reasonable rates and charges as will justly compensate your orator for services rendered, and yield a fair profit and return upon the capital necessarily employed in said enterprise, and in violation of the rights of contract and the rights of property guaranteed to your orator by the constitution of the United States, and under the pretence that it has arbitrary power to determine the price of gas, without regard to the adequacy of the price determined upon to compensate your orator for the service rendered, or to yield a fair revenue upon its capital, by its pretended ordinance No. 432, passed by its city council November 12, 1906, and approved by its mayor, the defendant Francis W. Brown, November 19, 1906, and thereafter published, ordained as follows:

"Ordinance No. 432.

An Ordinance Regulating the Price of Manufactured Gas Establishing Penalties for the Violation of the Provisions of this Ordinance, and Repealing all Ordinances in Conflict Herewith.

Be it ordained by the Mayor and Council of the City of Lincoln:

SECTION 1. No gas company shall charge, exact, demand or collect from any consumer for gas manufactured or sold in the city of Lincoln for illuminating or heating purposes more than the sum of One Dollar net per one thousand cubic feet, provided that any gas company may add a penalty of not more than ten cents per one thousand cubic feet for non-payment after six days from the date said gas company has furnished a bill or statement to any consumer; and provided further that a minimum monthly charge of twenty-five cents a month for a single service may be collected.

SECTION 2. The provisions of this ordinance shall apply to all companies which manufacture or distribute gas for sale for illuminating or heating purposes, and the term "gas company" shall include all persons, firms, corporations or individuals who manufacture or sell gas for illuminating or heating purposes.

15 SECTION 3. Any gas company, and any executive officer, president or manager of any gas company who shall violate any provision of this ordinance shall be deemed guilty of a misdemeanor and on conviction thereof shall be fined in any sum not less than Ten Dollars, nor more than One Hundred Dollars, and a violation thereof for each calendar day or part thereof shall constitute a separate offense.

SECTION 4. All ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.

SECTION 5. This ordinance shall take effect and be in force from and after December 1, 1906, after its passage approval and publication, according to law."

Your orator further shows unto your Honors that the Maximum rate of \$1.00 per thousand cubic feet of gas prescribed and limited by said ordinance, under the conditions subsisting in the said city of Lincoln and the other public burdens imposed upon your orator, necessarily entering into the cost of manufacture and distribution of gas, is wholly arbitrary. No right is in or by said ordinance given or saved to your orator to procure a judicial ascertainment and inquiry of the reasonableness of said rate, and your orator has never had its day in court on said question as to the reasonableness of said rate. By the said ordinance, your orator is deprived of its day in court and of all opportunity of a judicial inquiry and ascertainment of the reasonableness of said rate, contrary to the law of the land and in violation of your orator's vested rights under the aforesaid franchises and privileges, acceptance and use whereof necessitated investment and permanent appropriation to said enterprise of the large sum of money aforesaid.

Your orator further shows unto your Honors that the councilmen of the said City of Lincoln, who comprise its legislative body, did not, prior to or upon passage of said ordinance, make any
16 accounting or inquiry into the business and methods of your orator to ascertain whether the maximum rate so prescribed and limited was adequate or reasonable, although invited by your orator so to do, and in fixing and determining said rate, the said councilmen did not as required by their several oaths of office, and by law, act impartially nor endeavor to fix a rate just and reasonable alike for your orator and the public; on the contrary thereof, the said councilmen, moved by unrighteous and unlawful considerations and motives, took the said action and passed the said ordinance out of a desire to serve only their electors and constituents who placed them in office, solely at the cost and to the utter financial ruin of your orator, and wholly from partisan and partial motives. Prior to and at the time of the passage of the aforesaid ordinance pretending to prescribe said maximum rate of \$1.00 per thousand cubic feet of gas, the publishers of the State Journal and The Evening News, both daily newspapers published at said City of Lincoln of wide circulation and great influence among the electors of said city, had published persistently and continuously certain malicious, false and defamatory charges against your orator, for the purpose of influencing and intimidating the action of the defendant's city council in establishing a maximum gas rate, in and by which the said newspapers falsely published and asserted to the members of the defendant's city council and the electors of said city that rates charged by your orator were excessive and exorbitant, and that the people of the city demanded of its city council that it arbitrarily and at once pass an ordinance limiting the price of gas to the sum of \$1.00 per thousand cubic feet; and theretofore the said newspapers, by the means aforesaid, and by virtue of their wide circulation and great influence with the electors and with the council of said city, for the purpose of coercing such action on the part of the defendant, caused to be organized a pretended One Dollar Gas League, and thus fo-

17 mented discontent and hostility to your orator and invited all electors of the city to send their names to an agency of the said newspapers to be enrolled as members of the Dollar Gas League, and caused inflammatory suggestions, thus invited, fomented and incited by its own publications only, to be published daily, and by such means threatened and caused the councilmen to fear public condemnation and political defeat unless they yielded to the unrighteous demands of said newspapers and the sentiments so fomented among the electors, moved by the aforesaid sensational utterances so published. By such means, the said councilmen were, in fact, intimidated, and coerced into the passage of said ordinance, and deprived of their free agency and of their ability to act deliberately and impartially upon the said issue, and certain of the councilmen, particularly one John S. Bishop, were led to give utterance to the sensational sentiments of said newspapers in the deliberations of the council respecting the passage of said ordinance, and the said Bishop, during the deliberations of the council upon said issue, stated publicly, on the floor of the council and to his fellow councilmen, that it would be a good thing for the community if the action of the council resulted in the financial ruin of your orator and the placing of its affairs in the hands of a receiver. By all such means, the majority of the said council, whose honest judgments condemned the rate established by the ordinance, were induced to forego their several convictions and judgments and, notwithstanding, to pass the ordinance. Your orator charges that the proceedings so taken under coercion are fraudulent and null and void and of no effect in law.

Your orator further shows unto Your Honors that, in addition to the facts hereinbefore stated in this bill of complaint, the following facts and circumstances add materially to the necessary cost of manufacture and distribution of gas in the City of Lincoln: (1) Under existing tax levies and ordinances of the City of Lincoln, the annual impositions of taxes upon your orator's properties and business, for municipal, school, district, state and county purpose, aggregates the sum of about \$20,000, of which \$10,000 is an occupation tax
18 imposed by the City of Lincoln by ordinance, the validity of which your orator questions, and the legality of which has not yet been determined. (2) The defendant, the City of Lincoln, by its ordinance No. 363, passed by its city council April 9, 1906 and approved by the mayor April 16, 1906, has adopted and imposed upon your orator certain rules fixing unusually high and onerous standards for measurements, for quality as to purity, and for illuminating and heating power of gas, by which your orator is required, under the penalties of heavy fines and forfeitures, to continuously maintain each of the three standards prescribed, one of which is an illuminating power of not less than 18 English Sperm Candles when burned from a Suggs London Argand Burner No. 1 at the rate of 5 cubic feet per hour; one requiring a heat standard of not less than 625 British Thermal Units per cubic feet, at a pressure of 14.7 pounds per square inch, at a temperature of 60 degrees Fahrenheit scale; and one fixing the requisites as to purity, requiring sufficient

odor to be detected by the sense of smell that it contain not to exceed 20 grains of sulphur per 100 cubic feet, and not to exceed 10 grains of ammonia per 100 cubic feet, and that it shall contain no sulphurated hydrogen, and that it shall have a pressure of not less than $1\frac{1}{2}$ inches nor more than 5 inches measured in a water gauge at the place where tested. The said ordinance subjects your orator's business in many particulars to the direction and control of the public gas inspector, prescribes a standard of accuracy for meters, and subjects your orator to the cost of disconnecting and delivering all or any of its gas meters to the city inspector within twenty-four hours after notice by said officer and in addition to burdensome and oppressive fines imposed for violation of each and every of such regulations, the said ordinance subjects your orator to a reduction of five cents from the price allowed to be charged to consumers for each 1000 feet of gas, under ordinance of said city, for every time the standard of heat falls ten units below that prescribed. (3)

19 It is not practical to maintain all of said standards otherwise than by use of both coal and oil in the manufacture of gas, and for a number of years last past the market value thereof, particularly that of coal, has largely and greatly increased in price, and the said city is far removed from any source of supply thereof, and freights for its carriage for long distances must be added to the usual and ordinary cost thereof. (4) For a number of years last past the prices of all materials used by your orator in construction and equipment of its plant and appliances have steadily advanced in market values, as has also the cost of labor, both skilled and unskilled. Your orator shows that all of the facts aforesaid tended constantly and necessarily to increase, during the period of some years last past, the cost of manufacture and distribution of gas, and that during all of the period aforesaid, it has been the policy of the city, notwithstanding, to pursue a course of persistency and steadily diminishing the maximum rates of gas in said city and of increasing the public burdens and tax impositions to be borne by your orator, and by such means to decrease your orator's revenues ratably upon the business done and impair its pecuniary credit and ability to pay interest charges upon its bona fide debts and maintain the efficiency of its properties and service, and greatly to depreciate the market value of all its mortgage bonds and properties, so that at the date of the passage of the said ordinance fixing a maximum rate of \$1.00 per 1000 cubic feet of gas, the market value of your orator's securities was depreciated to a sum not exceeding much, if any, one-half of its invested capital.

Your orator further shows unto your Honors that the rate of \$1.00 per 1000 cubic feet of gas prescribed and limited by said ordinance is wholly inadequate to yield your orator a reasonable compensation for the service by the terms of its franchise required to be rendered, and will not yield sufficient revenue to pay the cost of manufacture, distribution, operation and maintenance of its manufacturing plant and properties necessarily employed therein, and yield reasonable or adequate or fair earnings on the large amounts of capital so as aforesaid permanently employed and invested

in said enterprise, and which the defendant city, by granting of said franchises and inviting and inducing said investment, agreed your orator should employ at fair and adequate profits and earnings. Said rate of \$1.00 per 1000 cubic feet of gas will, if enforced against your orator, together with the additional burden of the occupation tax heretofore mentioned, the validity of which your orator contests, without lessening the necessary cost of manufacture, distribution, operation and maintenance, decrease your orator's earnings in the sum of \$40,000 per annum and upwards below the revenues accruing from the gross rate of \$1.50 heretofore fixed by the ordinance of said city and charged by your orator, with an allowance of 30¢ per 1000 cubic feet on monthly payments made at your orator's office on or before the 6th day of each month, and will decrease your orator's revenues \$40,000 and upwards below that which is necessary to maintain the service and yield a fair or adequate or reasonable compensation upon its invested capital. The said rate, if enforced against your orator, will deprive it of the power to pay interest upon the money which it has borrowed and actually used and invested in its aforesaid properties, and will deprive your orator and the owners and holders of its negotiable mortgage bonds and the owners and holders of its shares of capital stock of adequate earnings, interest and dividends on their large sums of money invested therein and employed in said enterprise; and will operate as a condemnation and confiscation of the properties of your orator, its bond holders and share holders to public uses without any compensation paid therefor; and will deprive your orator and its mortgage bond holders and share holders of their property without due process of law; and will impair the obligation of the contract of said city of Lincoln made with your orator and its predecessors in ownership of said franchises under and by virtue of the aforesaid grants of rights, privileges and franchises and the duties thereby imposed upon your orator and its said predecessors and

21 Your orator further shows unto Your Honors that the pretended regulations contained in said ordinance so pretending to fix said maximum rate of \$1.00 are likewise violative of your orator's rights guaranteed by the Constitution of the United States in this: The system of charges so adopted is a level or flat meter rate, applicable alike to profitable and to unprofitable consumers and is a system not in general or common use, wholly unjust and arbitrary, and prohibiting your orator from procuring much profitable patronage from large consumers.

(1) Your orator has upwards of 5000 gas consumers and certain elements of the necessary cost of service are incurred ratably on account of each consumer, among which are the office expenses, the accounting and auditing department, the expense of meter reading and making out bills, the expense of connecting meters and disconnecting them, the expense of mains to which each individual service pipe is joined, the expense of the plant and equipment to meet the possible demand of each consumer, and interest on bonded debt, and, in fact, approximately all the expenses of operation and distribution, aside from the station cost of manufacture. Because thereof, your

orator incurs an actual loss on account of the service furnished each individual consumer from whom it is not permitted to collect an average monthly charge equalling \$2.00. Your orator has upwards of 2700 consumers of gas, whose bills at the rate of \$1.20 per thousand feet, yield a smaller average revenue than \$2.00 per month, and the number of such consumers will be increased if the rate of \$1.00 be enforced, to all of whom it gives service and, under the said ordinance will be obliged to give service at a rate actually less than cost thereof. Such consumers, who by force of the said rate ordinance and the said system of charges, the company is obliged to serve

at an actual loss, consume one-fifth of all the gas sold by it
 22 and distributed to its consumers. The large losses incurred in maintaining the service to said small and unprofitable consumers, your orator, by reason of the said system and plan of charging adopted by said ordinance, is obliged to collect from the large and profitable consumers, and is obliged to apply sufficient of the profits so derived from the large consumers to defray the service and administration charges actually incurred in serving the small consumers at a rate below cost. In respect to the large proportion of its total service which it is required to render at less than cost, the said ordinance is partial and discriminatory, operates to deprive your orator of its property without due process of law, and requires the profitable consumer to pay excessive rates in order that the service to unprofitable consumers may be maintained. Your orator further shows that the said level or flat meter rate system of charges, in the respects aforesaid, operates to deprive it of profitable business, which it could obtain from large consumers, if permitted to reduce its rates to them, after imposing a reasonable and equitable service charge, so that it would still maintain a fair profit above the station cost of manufacture. The said rate, while unreasonably low for small consumers, is prohibitive upon the large consumer, who has the alternative of using coal or other less expensive fuel; and so, without fault on your orator's part, it is by said ordinance hindered from working or enjoying a profitable and desirable patronage, which it can only obtain through reasonable classification of its consumers or by permitting it to impose an equitable service charge upon all consumers adequate in the aggregate to maintain its fixed charges other than the station cost of manufacture of gas, and then establishing a lesser rate for gas to be added in all cases to the service charge.

2. The maximum monthly charge of 25¢ per month for a single service permitted by said ordinance is arbitrary and unreasonably low, and is inadequate and insufficient to defray the actual cost to

your orator of maintaining its meter and service and connection with its plant on account of each individual service established and maintained.
 23

3. By the terms of said ordinance, your orator is required to extend credit to all consumers of gas for a period of six days from and after preparing and furnishing to the consumer a bill or statement, and is required, as a condition precedent to receiving or collecting any funds whatever, to be at the expense of preparing and delivering

to each customer a bill or statement six days in advance of receiving any compensation; and your orator is thereby denied the usual, necessary and customary privileges of offering a reward, by discount or otherwise, to customers presenting themselves at its office and making payment in such manner as to save your orator the cost of employing messenger service to deliver statements of account to its patrons; said ordinance denies to your orator all right of collection for services rendered to such of its customers who change their places of residence without notice to it, and whose whereabouts are thereafter unknown to your orator, and said ordinance denies to your orator right and power to demand and receive a security or deposit in advance from its individual consumers of sums reasonably adequate to indemnify your orator for the actual cost incurred in setting a meter and disconnecting it and to cover reasonable charges for meter rent and service and for the probable value of gas to be consumed during the reasonable or enforced term of credit; and by said ordinance your orator is denied the right to refuse to supply gas to delinquents refusing payment for prior service. In all the aforesaid respects, the said ordinance, in fact, requires your orator to give said service without any compensation and all of the said regulations are unreasonable and unlawful and operate as a confiscation and condemnation of your orator's properties to public uses without compensation.

24

4. In the said city of Lincoln at the present time, at the time of the passage of said ordinance, and for a long time prior thereto, The Lincoln Traction Company has operated and maintained and now operates and maintains a rival enterprise of offering and furnishing to the public electric light, heat and power, under a grant of franchise made to it by the City of Lincoln entitling it to the use of the streets, alleys, and public grounds of the said city wherein to construct, lay and maintain conduits for distribution of electricity for said purposes. The said agency of electricity is thus actually employed by said Lincoln Traction Company for the same identical uses and purposes that gas is employed by your orator; and electricity so employed by said Traction Company under said public franchises performs the same public uses and offices as does the gas manufactured and distributed by your orator in said city. In the uses of electricity, the defendant, the City of Lincoln, has at all times left the said Traction Company free to adopt such system of charges by classifying the customers in respect to the amount of current consumed, and to their being profitable or unprofitable patrons, as the actual business experience of said Traction Company warrants, and as is requisite to enable it to obtain all profitable patronage available under such system and classification of charges as the said Traction Company sees fit to adopt; and to the knowledge and with the acquiescence of said city of Lincoln, the said Traction Company, in its said business so conducted in direct competition with your orator's gas business, actually employs an adequate service charge sufficient to drive practically all of the unprofitable consumers to the use of gas, to the pecuniary detriment of your orator, and actually offers to

profitable consumers such favorable and reduced rates for current
25 actually consumed as to induce large consumers to forego the
use of gas, under the system of uniform charges operative
alike to profitable and unprofitable consumers, prescribed by
the defendant for the government of your orator's gas business,
greatly to the pecuniary detriment and necessary loss of patronage of
your orator. In this behalf, the said ordinance is discriminatory and
partial and is intended to operate and does operate to the disadvan-
tage of your orator and to the great advantage of your orator's said
competitor in business, and so denies to your orator the equal pro-
tection of the laws.

And so your orator charges and shows unto Your Honors that the
said ordinance so pretending to prescribe said regulations and to fix
the maximum rate of \$1.00 per 1000 feet of gas to be charged by
your orator to its consumers and patrons in said city is in each and
every of the particulars aforesaid violative of Section 10 of Article 1
of the Constitution of the United States, providing that no state shall
pass any law impairing the obligation of contracts, and of the four-
teenth amendment to the constitution of the United States, provid-
ing that no state shall deprive any person of property without due
process of law, nor deny to any person within its jurisdiction the
equal protection of the laws; each of which constitutional require-
ments are a part of the law of the land, and each of which limits,
restrains and prohibits the granting by the State of Nebraska or the
exercise of arbitrary power by defendant city of Lincoln for estab-
lishing gas rates inadequate to fairly compensate your orator and its
bond holders and share holders for the public services rendered and
required to be rendered and imposed upon it by the franchises, rights
and privileges heretofore by said city granted to your orator; and
from making partial and discriminatory regulations applicable alone
to your orator, while at the same time leaving your orator's com-
petitor in business free to exploit your orator's field of patronage
without being bound, hindered or restrained by the same
26 regulations which the defendant has applied to your orator;
and from denying to your orator the like and equal protec-
tion of the law which the said City of Lincoln freely affords to your
orator's competitor in business. Wherefore, your orator, as advised
by counsel, avers that the said ordinance and each and every part
and provision thereof is, on the grounds aforesaid, inoperative and
null and void.

Your orator further shows unto Your Honors, that the certain
ordinance heretofore referred to impose an onerous and burdensome
occupation tax upon your orator, in addition to your orator's ad
valorem property tax, the validity whereof is questioned by your
orator, was passed by the city council of the defendant city on or
about the 10th day of December, 1906, and approved by the mayor,
the defendant Francis W. Brown, and afterwards published, and is
in the words and figures following:

"An ordinance providing for and assessing an occupation tax upon all gas companies manufacturing and furnishing gas to the inhabitants of the City of Lincoln, fixing the amount thereof, providing for the enforcement and collection thereof and providing interest and penalty for non-payment when due and payable, and designating the funds to be credited with the amount so paid.

Be it ordained by the Mayor and Council of the City of Lincoln:

SECTION 1. That all gas companies manufacturing and furnishing gas to the inhabitants of the City of Lincoln are hereby required to pay an occupation tax, and the amount thereof as hereinafter specified is hereby assessed against said company or companies.

SECTION 2. That all gas companies manufacturing and furnishing gas to the inhabitants of the City of Lincoln are hereby required to pay the City of Lincoln as an occupation tax the sum and amount of Two and a half per cent ($2\frac{1}{2}\%$) of the gross receipts of said company, derived from its business of manufacturing and furnishing gas to the inhabitants of the City of Lincoln, payment thereof is to be made as follows: Beginning with January 1, 1907, said gas company or companies shall on the 15th day of each and every month thereafter pay the City of Lincoln Two and a half per cent ($2\frac{1}{2}\%$) of the gross receipts of said gas company for the preceding month, as hereinabove provided, as an occupation tax, and all deferred payments shall draw interest at the rate of one per cent (1%) per month, and after payment has been in default for six months, a penalty of five per cent (5%) shall be added thereto in addition to the interest charge, and shall be paid by said company or companies.

SECTION 3. All such gas companies on the 10th day of each month, as hereinabove provided, shall file with the City Clerk a full, complete and detailed statement of the income and operating expenses and other charges of said gas company for the preceding month, and said statement shall be duly verified and sworn to by the managing officer of any such gas company or companies, and the City of Lincoln shall have the right at any and all times during business hours to inspect, thru its officers, agents, or representatives, the books and records of any such gas company or companies for the purpose of verifying such report or reports. Provided, however, that in case any such gas company or companies shall refuse, fail or neglect to furnish or file such report at the time or times specified, or shall refuse to permit the City of Lincoln, thru its officers, agents or representatives, to inspect the books and records of any such company for the purpose of verifying such report or reports, then and in that event the occupation tax for the preceding month shall be and is hereby fixed and determined to be the sum and amount of One Thousand Dollars and said amount shall draw interest at the rate of one per cent (1%) per month after due and payable, and in addition thereto a penalty of five (5%) per cent for failure to pay within six months.

SECTION 4. In case any such gas company or companies shall fail to make payment of the occupation tax as hereinabove

provided, and at the time or times hereinabove specified, the City of Lincoln shall have the right and may sue any such gas company or companies in any court of competent jurisdiction for the amount of occupation tax due and payable under the terms and provisions of this ordinance, and may recover therein a judgment against any such gas company or companies for the amount so due, together with interest and penalties, and may have execution thereon.

SECTION 4½. Said occupation tax shall be paid to the City Treasurer of the City of Lincoln, at the time specified in this ordinance, and he shall issue and deliver a receipt therefor, upon the payment thereof, and the amount so paid shall be credited by the City Treasurer to the general fund of the City, unless otherwise directed by the Mayor and Council.

SECTION 5. All ordinances and parts of ordinances in conflict herewith are hereby repealed.

SECTION 6. This ordinance shall take effect on January 1, 1907, after its passage, approval and publication according to law."

The aforesaid ordinance pretending to levy said occupation tax is partial, discriminatory, unreasonable and oppressive in this: It imposes upon your orator an onerous tax burden to which the business and occupations of other persons within said city are not subjected. Otherwise than as the general methods of raising revenue by said city are varied by the said ordinance, the said defendant raises all its revenues by an ad valorem property tax levied upon all the property in said city, including the properties of your orator, which are valued for the purposes of assessment at a sum exceeding \$663,000. The said occupation tax so pretended to be imposed upon your orator is so burdensome and oppressive that your orator

cannot comply therewith nor pay the sums therein and
 29 thereby imposed out of the revenues permitted by the ordinances of said city to be collected for the public services rendered by your orator; and said ordinance, if enforced, will be prohibitive upon your orator's continuance in business, and will operate to utterly and wholly destroy all of your orator's privileges, rights and franchises heretofore, by the franchise ordinances herein mentioned, granted by the defendant city to your orator, and will deprive your orator of its said contract rights and privileges and of its properties without due process of law. The Lincoln Traction Company, a corporation heretofore organized under the laws of Nebraska, having its principal place of business at the said city of Lincoln, is at present and was at and prior to the date of the passage of said ordinance in full use and enjoyment of franchise rights granted by ordinance of said city, to construct, operate and maintain a plant and carry on the business of furnishing electricity to the public in said city for the uses of light, heat and power; and said traction company, at passage of said ordinance, had and now has a fully equipped plant for said purposes in operation, and is offering to and in fact supplying the public with light, heat and power, in direct and open competition with the gas business of your orator. The said ordinance was intended by the said city of Lincoln to discriminate against your orator in said lighting business

and in favor of the said Lincoln Traction Company and to deprive your orator of the right and power to compete in its gas department with the said electric light, heat and power business of the said Traction Company, and, if permitted to be enforced, will operate as such discrimination, to the pecuniary embarrassment and ruin of your orator's gas business. The said City of Lincoln has not, by said ordinance or otherwise, subjected the light, heat and power business of the Lincoln Traction Company to any occupation tax
30 or to any tax other than the general ad valorem property tax imposed by said city, as aforesaid, upon all the taxable property therein.

Wherefore, your orator avers, as advised by counsel, that the aforesaid ordinance pretending to impose said occupation tax upon your orator, operates to deprive your orator of the equal protection of the laws, imposes a discriminatory burden upon your orator, not imposed thereby or by any other law upon your orator's competitor in business, and deprives your orator of its franchise rights and privileges and of its properties without due process of law, and in all the respects aforesaid, is violative of the fourteenth amendment to the Constitution of the United States, providing that no state shall deprive any person of property without due process of law, nor deny to any person within its jurisdiction the equal protection of the laws, and also of Section 10 of Article 1 of the Constitution of the United States, providing that no state shall pass any law impairing the obligation of contracts.

Your orator further shows unto your Honors that, notwithstanding the invalidity of the aforesaid ordinance pretending to prescribe said regulations and to fix said maximum gas rate of \$1.00 per 1000 feet, the defendant, the City of Lincoln, pretending to act in faith of its validity, the said Francis W. Brown, Mayor, in pretended exercise of his official duty to enforce the ordinances of said city and to call to his aid a posse comitatus to assist him in enforcement thereof, and the said Edmund C. Strode, city attorney, in pretended exercise of his official duty to commence and prosecute actions in behalf of said city in all courts and to appear, by order of the mayor and counsel, to prosecute complaints for offenses against the ordinances of said city, threaten to and will, unless restrained by

31 Your Honors from so doing direct, order, commence and prosecute sundry suits, civil and criminal, before the police judge of said city of Lincoln and in courts of general and limited jurisdiction in Lancaster County, Nebraska, against your orator and your orator's executive officers and manager to enforce the burdensome, excessive and ruinous penalties prescribed by said ordinances for a refusal and failure to comply with their terms; and to institute proceedings in the district and supreme courts of Nebraska to compel your orator and your orator's executive officers and manager, by mandamus, to carry into effect the provisions thereof; and by asserting and pretending that the said rate ordinance is valid as a proper exercise of the alleged power of said city to fix the price of gas, to instigate and incite its inhabitants and citizens and the consumers of gas therein claiming the rights there-

under to institute and prosecute suits of like kind and character against your orator, its executive officers and manager. All of which actings, doing- and pretenses of said defendants are contrary to equity and good conscience, and tend to the manifest wrong, injury and oppression of your orator, who is remediless in the premises at and by the strict rules of the common law, which would subject your orator and its executive officers and manager to a multiplicity of suits by said defendants and by each and every one of the gas consumers of said city, and persons who may hereafter become consumers or desire so to do, many of whose names are to your orator unknown, and who are too numerous to be named or impleaded as defendants or brought before the court, all of whom will claim through and under the defendant the City of Lincoln and by virtue of the aforesaid pretended ordinance; and your orator can only have relief in a court of equity, where matters of this nature are properly cognizable.

32 Wherefore, your orator brings the foregoing bill against the City of Lincoln, Francis W. Brown, Mayor, and Edmund C. Strode, City Attorney, and prays that the defendants and each of them may be compelled full, true and perfect answers to make unto all and singular the matters aforesaid as fully and particularly as if the same were hereinafter repeated and they distinctly interrogated; but not under oath, answer under oath being hereby expressly waived.

And may it please Your Honors to grant unto your orator a writ of injunction pendente lite, issuing out of and in accordance with the rules and practice of this honorable court, to be directed to the said defendant, the City of Lincoln, Francis W. Brown, Mayor, and Edmund C. Strode, City Attorney, restraining and enjoining them and each of them, their agents, servants and employees, from in any wise obeying, observing, or conforming to the provisions, commands, injunctions and prohibitions of said certain alleged ordinance of the City of Lincoln No. 432, entitled, "An ordinance regulating the price of manufactured gas, establishing penalties for the violation of the provisions of this ordinance, and repealing all ordinances in conflict therewith"; and restraining them and each of them from instituting or prosecuting or causing to be instituted or prosecuted any action or proceeding, civil or criminal, against your orator, its executive officers or manager, for any act or thing done, suffered or omitted, which may be forbidden or commanded by said ordinance, and particularly from reducing its present rate of charges for gas to those prescribed in said ordinance, until the further order and decree of this Court in the premises.

That on the final hearing thereof, the aforesaid ordinances and each of them, the one pretending to prescribe said maximum rate, and the other pretending to impose said occupation tax, be adjudged void, because repugnant to the said several provisions of the Constitution of the United States, and that said injunction be
33 made perpetual.

And that your orator may have such further or other relief

in the premises as the nature of the circumstances of this case may require, and to Your Honors shall seem meet and proper.

And so may it please Your Honors to grant unto your orator the most gracious writ of subpoena to be directed to the said the City of Lincoln, Francis W. Brown, Mayor of the City of Lincoln, and Edmund C. Strode, City Attorney of the City of Lincoln, thereby commanding them and each of them, at a certain date and under a certain penalty therein to be specified, personally to be and appear before Your Honors in this honorable court, and then and there to answer all and singular the premises and to abide and perform such order and decree herein as to Your Honors shall seem meet.

(Signed)

HALLECK F. ROSE,
Solicitor for Complainant.

(Signed HALLECK F. ROSE,

Of Counsel for Complainant.

UNITED STATES OF AMERICA,

District and State of Nebraska,

Lancaster County, ss:

Homer Honeywell, being first duly sworn, on oath says that the Lincoln Gas & Electric Light Company, complainant in the above entitled cause, is a corporation; that affiant is and for two years last past has been acting general manager in direct and immediate charge of its administration and affairs at the City of Lincoln, and that the presentation and prosecution of this bill has been expressly authorized by said company and its president; that affiant is the officer of said company highest in authority at this time
34 within the City of Lincoln and within the District of Nebraska; that affiant has read the foregoing bill of complaint and knows the contents thereof, and that the matters and things in said bill of complaint alleged are within affiant's personal knowledge, and that the same are true of affiant's own knowledge, except as to matters which are therein stated on information or belief, and as to those matters, that he believes them to be true.

(Signed)

HOMER HONEYWELL.

Subscribed in my presence and sworn to before me this 26th day of December, 1906.

(Signed)

MARY E. MORTIMER,

Notary Public.

[NOTARIAL SEAL.]

Commission expires Feb. 12, 1911.

Indorsed: 10 A 159 X Circuit Court, United States, District of Nebraska. 159 X The Lincoln Gas & Electric Light Company, Complainant, vs. The City of Lincoln, Francis W. Brown, Mayor, and Edmund C. Strode, City Attorney of said City of Lincoln, Defendants. No. —. Docket —. In Chancery. Bill of complaint

Filed Dec. 27, 1906. Geo. H. Thummel, Clerk. A. D.—Halleck F. Rose & W. B. Comstock, Attorneys for Complainant. Halleck F. Rose, Counsel.

Thereupon, afterwards, to wit, on the 27th day of December, 1906, notice of application for injunction and acceptance of service was filed in said case, which said notice is in words and figures following, to wit:

In the Circuit Court of the United States for the District of Nebraska.

35 THE LINCOLN GAS & ELECTRIC LIGHT COMPANY, Complainant,
vs.

THE CITY OF LINCOLN, FRANCIS W. BROWN, Mayor, and EDMUND C. STRODE, City Attorney of said City of Lincoln, Defendants.

Notice.

To the above named defendants:

You and each of you are hereby notified that the above named complainant, The Lincoln Gas & Electric Light Company, has this day filed in the office of the Clerk of the United States Circuit Court for the District of Nebraska its bill of complaint against you, addressed to the Honorable, the judges of the Circuit Court of the United States in and for the said District of Nebraska, whereby it complains and charges that ordinance No. 432 of the City of Lincoln, passed November 12, 1906, approved November 19, 1906, and since published, entitled "An ordinance regulating the price of manufactured gas, establishing penalties for the violation of the provisions of this ordinance, and repealing all ordinances in conflict therewith," and all the provisions thereof, are null and void, because violative of Section 10 of Article 1 of the Constitution of the United States, and of the Fourteenth Amendment to the Constitution of the United States, and for greater particularity as to the ground of said charges, defendants are referred to the said bill now on file. Among other relief prayed for in said bill, the complainant prays for a writ of injunction pendente lite, restraining and enjoining the defendants and each of them from obeying, observing or conforming to the provisions of the aforesaid ordinance, and particularly from reducing the present rate of charges for gas in the City of Lincoln to those prescribed in said ordinance until the further order and decree of the said court in the premises.

36 You are hereby notified that the complainant upon said bill will, on the 21st day of January, 1907, at the hour of 9 o'clock and 30 minutes A. M. at the court room of said court in the City of Lincoln, move upon said bill for the allowance of said writ of injunction pendente lite, and at which time and place you are required to appear before the Circuit Court of the United States for

the District of Nebraska in the Eighth Circuit, then and there to show cause, if any you have, why the preliminary injunction therein prayed for should not issue.

Dated Lincoln, Nebraska, December 27, 1906.

(Signed)

HALLECK F. ROSE,
Solicitor and Counsel for Complainant, The
Lincoln Gas & Electric Light Company.

Service of the above notice is acknowledged this 27th day of December, 1906.

(Signed)

FRANCIS W. BROWN,
As Chief Officer of the City of Lincoln and for
Himself as Mayor of the City of Lincoln.

(Signed)

EDMUND C. STRODE,
City Attorney.

Indorsed: 10 A 159 X U. S. Circuit Court District of Nebraska. Lincoln Gas & Electric Light Company vs. The City of Lincoln et al. Notice of Application for Injunction and Acceptance of Service. Filed Dec. 27, 1906. Geo. H. Thummel, Clerk. A. D. Halleck F. Rose, Att'y & Counsel for Complainant.

Thereupon, afterwards, to wit, at the November, 1906, term of said court, and on the 27th day of December, 1906, the following order was signed and filed in said case, and duly entered of record in Journal — of said court, to wit:

37 In the Circuit Court of the United States, District of Nebraska.

THE LINCOLN GAS & ELECTRIC LIGHT COMPANY, Complainant,

vs.

THE CITY OF LINCOLN, FRANCIS W. BROWN, Mayor, and EDMUND C. STRODE, City Attorney of said City of Lincoln, Defendants.

Restraining Order.

Whereas in the above cause it has been made to appear upon the bill of complaint filed herein and the affidavit of Homer Honeywell that a writ of injunction preliminary to the final hearing is proper and prima facie the complainant is entitled thereto, enjoining defendants herein from the acts complained of and threatened to be committed; and it further appearing to the court that due notice of the filing of the motion for an injunction has been served upon all of the defendants, requiring them to appear before the Circuit Court of the United States for the District of Nebraska in the Eighth Circuit at the court room of said court in Lincoln on the 21st day of January, 1907, at 9 o'clock and 30 minutes A. M. then and there to show cause, if any they have, why the preliminary injunction therein prayed for should not issue; and it appearing to the undersigned district judge for the district of Nebraska of said circuit court that

there is danger of irreparable injury caused to the complainant before the hearing of said application for the preliminary writ of injunction, unless the said defendants are, pending such hearing, restrained as hereafter set forth:

Therefore, complainant's application for such restraining order is granted upon its giving a bond with two good and sufficient sureties, to be approved by the clerk of this court in the penal sum of \$3000—
 38 securing the said defendants against all loss or damage which may result from the issue of said order if it shall be finally determined that the same was improperly issued or that may be awarded to them by reason of the granting of said order:

Now, therefore, it is ordered that you, the said City of Lincoln, Francis W. Brown, Mayor, and Edmund C. Strode, City Attorney of said city, defendants herein, your agents, servants, attorneys, and all persons acting by or under your authority or direction, be and you hereby are specially restrained and enjoined from in any wise obeying, observing or conforming to the provisions, commands, injunctions and prohibitions of a certain ordinance of the City of Lincoln, Number 432, entitled: "An Ordinance regulating the price of manufactured gas, establishing penalties for the violation of the provisions of this ordinance and repealing all ordinances in conflict therewith," passed November 12, 1906 by the council of said city, and approved November 19, 1906 by the mayor, defendant Francis W. Brown; and from ordering, instituting or causing to be instituted or prosecuted any action or proceeding, civil or criminal, against the complainant, its executive officers or manager for any act or thing done, suffered or omitted which may be forbidden or commanded by the said ordinance, and particularly from reducing its present rate of charges for gas to those prescribed in said ordinance, until the further order of this court.

It is further ordered that a copy of this order, certified under the hand of the clerk and the seal of this court, be served on each of the defendants to be restrained thereby.

Dated at Omaha in the District of Nebraska this 27th day of December, 1906.

(Signed)

W. H. MUNGER,
District Judge, District of Nebraska.

39 Indorsed: 159 X. 10 A. Circuit Court of United States, District of Nebraska. The Lincoln Gas & Electric Light Company, Complainant, vs. The City of Lincoln, Francis W. Brown, Mayor, and Edmund C. Strode, City Attorney of said City of Lincoln, Defendants. Restraining Order. Filed Dec. 27, 1906. Geo. H. Thummel, Clerk. A. D.

Thereupon, afterwards, to wit, on the 27th day of December, 1906, Præcipe for Chancery Subpœna was filed in said case, which said præcipe is in words and figures following, to wit:

In the Circuit Court of the United States, District of Nebraska.

No. —, Docket —.

LINCOLN GAS & ELECTRIC LIGHT CO.

vs.

THE CITY OF LINCOLN ET AL.

To the Clerk of said Court:

Please subpoena in chancery for defendants, The City of Lincoln, Francis W. Brown mayor, and Edmund C. Strode City Attorney of the City of Lincoln in the above entitled cause.

Dated this 27th day of Dec. 1906.

(Signed)

HALLECK F. ROSE,
Solicitor & Counsel for Complainant.

Indorsed: 10 A. No. 159. Doc. X. In the Circuit Court of the United States, District of Nebraska. Lincoln Gas & Electric Lt. Co. vs. City of Lincoln. Praecipe for subpoena. Filed Dec. 27, 1906. A. D. Geo. H. Thummel, Clerk. Halleck F. Rose, Sol. for Complainant.

Thereupon, afterwards, to wit, on the 27th day of December, 1906, Chancery Subpoena was duly issued in said case, and returned and filed on the third day of January, 1907, which said chancery subpoena is in words and figures following, to wit:

40

(Original.)

UNITED STATES OF AMERICA,
District of Nebraska:

The President of the United States of America to the City of Lincoln, Francis W. Brown, Mayor, and Edmund C. Strode, City Attorney of said City of Lincoln, Greeting:

You are hereby commanded to be and appear at Rules, to be held at the office of the Clerk of the Circuit Court of the United States for the District of Nebraska, on the first Monday of February next, at the city of Omaha, then and there to answer the Bill of Complaint of The Lincoln Gas & Electric Light Company, this day filed against you, hence fail not.

Witness, the Honorable Melville W. Fuller, Chief Justice of the Supreme Court of the United States, this 27th day of December, 1906. Issued at my office in the city of Omaha, under the seal of said Circuit Court, the day and year last aforesaid.

[OFFICIAL SEAL.] (Signed) GEO. H. THUMMEL, *Clerk,*

By — —, *Deputy,*

MEMORANDUM.—The above named defendants to enter their appearance in this suit in the Clerk's office aforesaid, on or before the day at which this writ is returnable; otherwise the bill may be taken pro confesso.

(Signed)

GEO. H. THUMMEL, *Clerk*,

By ———, *Deputy*.

HALLECK F. ROSE,

Complainant's Solicitor.

Indorsed: 10 A. No. 159. Doc. X. Marshal's Doc. No. 2702. United States Circuit Court, District of Nebraska. Lincoln Gas & Electric Light Company vs. City of Lincoln et al. Chancery Subpœna (Original). Returnable to Feb'y Rules, 1907. Filed Jan. 3, 1907. A. D. Geo. H. Thummel, Clerk. Rec'd at Marshal's 41 Office 12/28 1906. Handed Marshal 12/28 1906. Halleck F. Rose, Complainant's Solicitor. Marshal's Costs: Service \$6.00. Mileage 3.30. Expense —. Total \$9.30.

Attached to said Chancery Subpœna are the Returns of the marshal in words and figures following, to wit:

DISTRICT OF NEBRASKA, ss:

I hereby certify and return that on the 27th day of December 1906 I received this Chancery Subpœna, and on the 28th day of December, 1906 I served the same upon the within-named Francis W. Brown, Mayor, and Edmund C. Strode, City Attorney of the said City of Lincoln, defendants, in Lancaster County, State and District of Nebraska, by delivering to and leaving with each of them personally a certified copy thereof, with all the indorsements thereon.

(Signed)

WM. P. WARNER,

United States Marshal for the District of Nebraska,

By ———,

Deputy United States Marshal.

Indorsed: Filed Jan. 3, 1907. Geo. H. Thummel, Clerk.

DISTRICT OF NEBRASKA, ss:

I hereby certify and return that on the 27th day of December, 1906 I received this Chancery subpœna, and on the 28th day of December, 1906 I served the same upon the within-named The City of Lincoln in the said City of Lincoln in Lancaster County, State and District of Nebraska, by delivering to and leaving with Francis W. Brown, the Mayor of said City of Lincoln, a certified copy thereof, with all the indorsements thereon.

(Signed)

WM. P. WARNER,

United States Marshal for the District of Nebraska,

By ———,

Deputy United States Marshal.

42

Indorsed: Filed Jan. 3, 1907. Geo. H. Thummel, Clerk.

Thereupon, afterwards, to wit, on the 28th day of December, 1906, Bond on Restraining Order was filed in said case, which said bond is in words and figures following, to wit:

In the Circuit Court of the United States for the District of Nebraska.

THE LINCOLN GAS & ELECTRIC LIGHT COMPANY, Complainant,
 vs.
 THE CITY OF LINCOLN, FRANCIS W. BROWN, Mayor, and EDMUND C. STRODE, City Attorney of said City of Lincoln, Defendants.

Bond on Restraining Order.

Know all men by these presents: That we, The Lincoln Gas & Electric Light Company, as principal, and J. K. Honeywell and Hal-leck F. Rose, of the district aforesaid and hous-holders therein, as sureties, parties of the first part, are held and firmly bound unto the said The City of Lincoln, Francis W. Brown, Mayor, and Edmund C. Strode, city attorney, defendants in the above entitled action, parties of the second part, in the just and full sum of Three Thousand & no/100 Dollars (\$3000.00), for the payment of which well and truly to be made, we do hereby jointly and severally bind ourselves and each of our successors, heirs, executors and administrators firmly by these presents. Sealed with our seals, and dated this 27th day of December in the year of our Lord One Thousand Nine Hundred and Six, upon condition as follows:

Whereas, the said The Lincoln Gas & Electric Light Company has commenced its certain suit against the above named parties
 43 in the Circuit Court of the United States in and for the Dis-trict of Nebraska, and therein prayed for an injunction against the defendants pending the trial of said suit, and also prayed for a restraining order therein upon said defendants preliminary to the hearing of said application for injunction; and whereas, the Hon-orable William H. Munger, judge of the said Circuit Court of said district, has granted said prayer for said restraining order upon the condition that the said complainant shall cause to be executed a good and sufficient bond to the defendants in the sum of \$3000.00 to se-cure them against all costs and damages which may be awarded them in case said order shall be finally determined to have been improperly granted:

Now, therefore, if the said The Lincoln Gas & Electric Light Company shall well and truly pay the said defendants all costs and damages which may be awarded to them in case said court shall finally determine that said order was improperly granted, not ex-ceeding the said sum of \$3000.00, then this obligation to be null and void; otherwise, to be and remain in full force and effect.

Witness our hands and seals this 27th day of December, A. D., 1906.

LINCOLN GAS & ELECTRIC LIGHT
COMPANY,

[CORPORATE SEAL.]

(Signed) By HOMER HONEYWELL,

Acting General Manager, and

(Signed) HALLECK F. ROSE,

Its Attorney and Counselor of Record in said Case.

(Signed) HALLECK F. ROSE.

(Signed) J. K. HONEYWELL.

DISTRICT AND STATE OF NEBRASKA,

Lancaster County, ss:

J. K. Honeywell and Halleck F. Rose, being first duly
44 sworn according to law, deposes each for himself and states
as follows: I am the same person whose name is subscribed
to the foregoing bond as a surety thereon, and I state that I am
worth the sum specified as a penalty thereon over and above all my
just debts and liabilities, exclusive of property which is exempt from
execution.

(Signed)

HALLECK F. ROSE.

(Signed)

J. K. HONEYWELL.

Subscribed in my presence and sworn to before me this 27th day
of December, 1906.

(Signed)

MARY E. MORTIMER,

[NOTORIAL SEAL.]

Notary Public.

Commission expires Feb. 12, 1911.

Surieties approved Dec. 28, 1906.

(Signed)

GEO. H. THUMMEL, *Clerk.*

Indorsed: 10 A 159 X Circuit Court of United States, District of
Nebraska. The Lincoln Gas & Electric Light Company, Complain-
ant, vs. The City of Lincoln, Francis W. Brown, Mayor, and Ed-
mund C. Strode, City Attorney of said City of Lincoln. Defendants.
Bond on Restraining Order. Filed Dec. 28, 1906. Geo. H. Thum-
mel, Clerk. A. D. Halleck F. Rose & W. B. Comstock, Attorneys
for Complainant. Vol. 2—Page 171 Miscellaneous Record.

45

Thereupon, afterwards, to wit, on the 28th day of Decem-
ber, 1906, Certified Copy of Restraining Order was issued in
said case, and returned and filed on the third day of January, 1907,
which said copy of restraining order is in words and figures follow-
ing, to wit:

United States Circuit Court, District of Nebraska, November, 1906,
Term.

OMAHA, NEBRASKA, *December 27, 1906.*

Court opened pursuant to adjournment.

Present: Hon. William H. Munger, Judge.

The following among other proceedings were had and done, to-wit:

THE LINCOLN GAS & ELECTRIC LIGHT COMPANY, Complainant,

vs.

THE CITY OF LINCOLN, FRANCIS W. BROWN, Mayor, and EDMUND C. STRODE, City Attorney of said City of Lincoln, Defendants.

Restraining Order.

Whereas in the above cause it has been made to appear upon the bill of complaint filed herein and the affidavit of Homer Honeywell that a writ of injunction preliminary to the final hearing is proper and prima facie the complainant is entitled thereto, enjoining defendants herein from the acts complained of and threatened to be committed; and it further appearing to the court that due notice of the filing of the motion for an injunction has been served upon all of the defendants, requiring them to appear before the Circuit Court of the United States for the District of Nebraska in the Eighth Circuit at the Court room of said court in Lincoln on the 21st. day

of January 1907, at 9 o'clock and 30 minutes A. M. then
46 and there to show cause, if any they have, why the preliminary injunction therein prayed for should not issue; and it appearing to the undersigned district judge for the district of Nebraska of said circuit Court that there is danger of irreparable injury caused to the complainant before the hearing of said application for the preliminary writ of injunction, unless the said defendants are pending such hearing, restrained as hereafter set forth:

Therefore, complainant's application for such restraining order is granted upon its giving a bond with two good and sufficient sureties, to be approved by the clerk of this court in the penal sum of \$3000, securing the said defendants against all loss or damage which may result from the issue of said order if it shall be finally determined that the same was improperly issued or that may be awarded to them by reason of the granting of said order: Now therefore, it is

Ordered, that you, the said City of Lincoln, Francis W. Brown, Mayor, and Edmund C. Strode, City Attorney of said City, defendants herein, your agents, servants, attorneys, and all persona acting by or under your authority or direction, be and you hereby are specially restrained and enjoined from in any wise obeying, observing or conforming to the provisions, commands, injunctions and prohibitions of a certain ordinance of the City of Lincoln Number 432, entitled "An ordinance regulating the price of manufactured gas,

establishing penalties for the violation of the provisions of this ordinance and repealing all ordinances in conflict therewith," passed November 12, 1906, by the council of said City, and approved November 19, 1906, by the mayor, defendant Francis W. Brown; and from ordering, instituting or causing to be instituted or prosecuted any action or proceeding, civil or criminal, against the complainant, its executive officers or manager for any act or thing done, suffered or omitted which may be forbidden or commanded by the said ordinance, and particularly from reducing its present

47 rate of charges for gas to those prescribed in said ordinance, until the further order of this court. It is further

Ordered that a copy of this order, certified under the hand of the clerk and the seal of this court, be served on each of the defendants to be restrained thereby.

Dated at Omaha in the District of Nebraska this 27th day of December, 1906.

W. H. MUNGER,
District Judge of Nebraska.

Endorsed: Filed Dec. 27, 1906. Geo. H. Thummel, Clerk.

UNITED STATES OF AMERICA,
District of Nebraska, ss:

I, Geo. H. Thummel, Clerk of the Circuit Court of the United States for the District of Nebraska, do hereby certify the above and foregoing to be a true and correct copy of the Journal Entry of the proceedings of said Court, in the above entitled action, as the same appears of record in my office.

I further certify that a bond in the sum of \$3000.00 has been duly approved and filed in said case.

Witness my hand and the seal of said court at Omaha in said District this 28th day of December, A. D. 1906.

[OFFICIAL SEAL.]

GEO. H. THUMMEL, *Clerk.*

Indorsed: 10 A #2702 No. 159 Docket X U. S. Circuit Court Dist. of Nebr. Lincoln Gas & Electric Light Co. vs. City of Lincoln, et al. Copy Restraining Order. Filed Jan. 3, 1907, A. D. Geo. H. Thummel, Clerk Rec'd at Marshal's office 12/28, 1906. Handed Marshal 12/28, 1906. Marshal's Costs: Service, \$6.00; Mileage, 3.30; Expense —; Total, \$9.30.

48 Attached to said certified copy of restraining order are the returns of the Marshal in words and figures following, to wit:

DISTRICT OF NEBRASKA, ss:

I hereby certify and return that on the 27th day of December, 1906 I received this restraining order, and on the 28th day of December, 1906 I served the same upon the within-named The City of Lincoln in the said City of Lincoln in Lancaster County, State and District of Nebraska, by delivering to and leaving with

Francis W. Brown, the Mayor of said City of Lincoln, a certified copy thereof, with all the indorsements thereon.

(Signed) WM. P. WARNER,
United States Marshal for the District of Nebraska,
 By _____,
Deputy United States Marshal.

Indorsed: Filed Jan. 3, 1907. Geo. H. Thummel, Clerk.

DISTRICT OF NEBRASKA, ss:

I hereby certify and return that on the 27th day of December, 1906 I received this Restraining order, and on the 28th day of December, 1906 I served the same upon the within-named Francis W. Brown, Mayor, and Edmund C. Strode, City Attorney of the said City of Lincoln, defendants, in Lancaster County, State and District of Nebraska, by delivering to and leaving with each of them personally a certified copy thereof, with all the indorsements thereon.

(Signed) WM. P. WARNER,
United States Marshal for the District of Nebraska,
 By _____,
Deputy United States Marshal.

Indorsed: Filed Jan. 3, 1907. Geo. H. Thummel, Clerk.

49 Thereupon, afterwards, to wit, on the 13th day of May, 1907, answer was filed in said case, which said answer is in words and figures following, to wit:

In the Circuit Court of the United States for the District of Nebraska.

THE LINCOLN GAS AND ELECTRIC LIGHT COMPANY, Complainant,
 vs.

THE CITY OF LINCOLN, FRANCIS W. BROWN, Mayor, and EDMUND C. STRODE, City Attorney of said City of Lincoln, Defendants.

Answer.

The defendants, the City of Lincoln, and its officers now and at all times hereafter, saving to itself all manner of benefits and advantages of exception or otherwise, that can or may be had or taken for the many errors, uncertainties and imperfections in the bill of the Lincoln Gas & Electric Light Company herein contained, for answer thereto, or to as much thereof as this defendant is advised and is material and necessary to make answer to, says:

1. Defendants admit that the complainant is a corporation organized under the laws of the State of Nebraska, for the purpose of owning and operating a lighting plant; and that the complainant succeeded to such property rights of the Lincoln Gas & Electric Com-

pany, as it had power to alienate, and that the latter company had previously succeeded to such property rights of the Lincoln Gas Company, as it had power to alienate which last two corporations had previously to complainant's organization and existence, owned and operated lighting plants in this city. Admit that the ordinance, parts of which are set out in the bill of complaint, were passed by the mayor & council — the City of Lincoln, but defendants deny that such ordinances were legal & valid or conferred upon complainant's predecessors or either of them a perpetual franchise to use the streets and alleys of the City of Lincoln for the purpose of maintaining and operating a system of lighting by gas and electricity, as claimed in the bill of complaint, but on the contrary, defendants aver the fact to be that such right was strictly limited to a period of twenty-one years commencing March 9, 1872, and ending March 9, 1893, and the right of operating such lighting system and the use of the streets and alleys of the City therefor, since said last named date, has been by the sufferance only of the defendant City, and subject to termination at any time by it. Defendant says that this court in this proceeding is without jurisdiction to determine or adjudicate the franchise rights and privileges of the complainant and defendant saves to itself all manner of benefits and advantage of exception and objection to the jurisdiction of this court with respect thereto.

2. Defendants admit the passage of the ordinance by the City Council November 16, 1906, set out in the bill of complaint, whereby the price of gas to consumers in the defendant city, was limited to one dollar per thousand cubic feet, and alleges that the same ever since said date and now is a legal and valid ordinance and in full force and effect, except as the enforcement of the same is and has been restrained by the injunction granted by this Honorable Court.

Defendants aver that the statutes of the State of Nebraska, grant to the City of Lincoln the power to regulate and fix the price of gas to consumers, and the Mayor and Council are authorized, and it was made their duty to enact ordinances for that purpose, and defendants aver that the aforesaid ordinance was duly and legally enacted in pursuance to such grant of power and authority.

51 Defendants deny that the enforcement of the foregoing ordinance will so reduce complainants earnings as to prevent it from paying a dividend upon its capital actually and necessarily required for the construction and equipment of its lighting system, and defendant alleges that the enactment of said ordinance with its provisions fixing the price of gas to consumers, as aforesaid, was and is a reasonable exercise of the power vested in the defendant City, as aforesaid, by the legislature of Nebraska, and its enforcement will result in no wrong to complainant, and the limitation therein contained on the price of gas, is reasonable and just, and such price will cover the cost thereof, and in addition will pay the necessary expense of the operation of such lighting plant together with a reasonable dividend upon the reasonable and necessary cost of such plant; and defendants deny that such ordinance will deprive complainant of its property without due process of law, and deny that its provisions

violated any of the provisions of the constitution of the United States.

3. Defendants admit that complainant's outstanding stock and bonds amount to more than two million dollars, but allege that the same are largely fictitious and watered and the same does not represent the amount of capital reasonably necessary to construct, equip and operate complainant's lighting system; that the replacement and present value thereof does not exceed five hundred thousand dollars, and said last named sum more than represents the capital necessarily invested in the construction, maintenance and operation of such a lighting system.

4. For further answer, defendants admit the enactment of the ordinance on or about December 10, 1903, levying an occupation tax of two and one-half per cent annually upon the gross receipts of all gas companies operating in the City of Lincoln, but deny that such ordinance in its provisions is partial, discriminating, oppressive or unjust, and alleges that the same was duly and legally enacted and is a reasonable exercise of the power vested in the defendant by the constitution and statutes of the State of Nebraska; that the same is a legal and valid ordinance and is and has been in full force and effect except as its operation has been restrained by the injunction herein granted by this honorable court.

Defendants deny that such ordinance was passed by reason of any improper motive or influence, and denies that defendants' councilmen and mayor were moved to enact such ordinance by any unrighteous or unlawful motive or influence, and defendants except to all such allegations of complainant as scandalous, impertinent and immaterial matter, and an uncalled for reflection upon the officers of the City of Lincoln, and upon the dignity and standing of this court, in assuming that this honorable court would be influenced by such immaterial and scandalous matter. And defendants ask this honorable court to cause the same to be expunged from said bill of complaint.

Defendants further answering deny each and every allegation in the bill of complaint contained not herein specifically admitted or denied.

Wherefore, the defendants having fully answered, confessed, traversed and avoided or denied all the matters in the said bill of complaint material to be answered, according to its best knowledge and belief, humbly prays this honorable court to enter its judgment, that this defendant be hence dismissed, with its reasonable costs and charges in this behalf most wrongfully sustained, and for such other and further relief in the premises as to this honorable court may seem meet and in accordance with equity.

CITY OF LINCOLN,

By EDMUND C. STRODE,

Solicitor and of Counsel for Defendants.

(Signed)

Indorsed: 10, A. Lincoln Gas & Electric Light Co. vs. City of Lincoln. Answer. Filed May 13, 1907. Geo. H. Thummel, Clerk, by F. A. Harrison, Deputy. A. D.

Thereupon, afterwards, to wit, on the 17th day of June, 1907, motion was filed in said case, which said motion is in words and figures following, to wit:

In the Circuit Court of the United States in and for the District of Nebraska.

LINCOLN GAS & ELECTRIC LIGHT COMPANY, Complainant,
vs.
CITY OF LINCOLN et al., Respondents.

Motion.

Comes now the City of Lincoln, respondent in the above entitled action and shows to the Court that the complainant herein is in default of replication or plea to respondents' answer and has taken no testimony herein, respondent therefore moves the Court for the submission of this action upon the complaint and answer.

(Signed)

JOHN M. STEWART,
Att'y for the City of Lincoln.

To H. F. Rose, Attorney for the Lincoln Gas & Electric Light Company, Complainant:

You are hereby notified that the City of Lincoln respondent in the above entitled action, has filed a motion of which the above and foregoing is a copy, and such motion will be called up and submitted to said Court for its decision on the 19th day of June, 1907, at 10 o'clock A. M. or as soon thereafter as counsel can be heard.

54

(Signed)

JOHN M. STEWART,
Att'y for the City of Lincoln.

Received a copy of the above motion and notice this 15th day of June, 1907.

(Signed)

HALLECK F. ROSE,
Att'y for Complainant.

Indorsed: In the U. S. Circuit C't in and for the District of Nebraska. Lincoln Gas & Electric Light Company Complainant vs. City of Lincoln, Respondent. Motion. Filed Jun- 17, 1907. Geo. H. Thummel, Clerk, by F. A. Harrison, Deputy. A. D. John M. Stewart, Att'y.

Thereupon, afterwards, to wit, on the 18th day of June, 1907, objections to consideration and allowance of respondent's motion to enter judgment because of failure to file a replication were filed in said case, which said objections are in words and figures following, to wit:

In the Circuit Court of the United States for the District of Nebraska,
Lincoln Division.

LINCOLN GAS & ELECTRIC LIGHT COMPANY, Complainant,

vs.

THE CITY OF LINCOLN et al., Respondents.

*Objections to Consideration and Allowance of Respondents' Motion
to Enter Judgment Because of Failure to File a Replication.*

The complainant, The Lincoln Gas & Electric Light Company, objects to the consideration and allowance of the motion to submit said cause on the complaint and answer, and suggests to the court—

55 1. That the defendants did not except or answer the bill of complaint at the March rules, as required by the subpœna, and neither applied for nor obtained leave of court to answer the said bill at a later day.

2. The answer of the defendants in not properly on file by leave of court nor filed within the time prescribed by the rules of practice in said court.

3. The said answer was not filed at or prior to the rule day in May, 1907, nor prior to the 13th day of May, 1907, and no leave was granted by the court to file the said answer nunc pro tunc.

4. The complainant is not in default of replication and though leave be granted to defendants to file their answer as of the date of May 13, 1907, the complainant, by the practice of the court, could not be required to file exceptions or replication to the answer before July rule day.

5. John M. Stewart, Esquire, who presents the said motion as attorney, has not filed or entered his appearance as solicitor or counselor in said case as is required by the rules of said court.

(Signed)

HALLECK F. ROSE,
Solicitor for Complainant.

Indorsed: 10 A Circuit Court, United States, District of Nebraska, Lincoln Division. Lincoln Gas & Electric Light Co. vs. The City of Lincoln, et al. Objections to Consideration and Allowance of Respondents' Motion to Enter Judgment Because of Failure to File a Replication. Filed Jun- 18, 1907. Geo. H. Thummel, Clerk, by F. A. Harrison, Deputy. A. D. Halleck F. Rose, Solicitor for Complainant.

56 Thereupon, afterwards, to wit, on the 22d day of June, 1907, replication to answer was filed in said case, which said replication is in words and figures following to wit:

In the Circuit Court of the United States for the District of Nebraska,
Lincoln Division.

THE LINCOLN GAS & ELECTRIC LIGHT COMPANY, Complainant,
vs.
THE CITY OF LINCOLN, FRANCIS W. BROWN, Mayor, and EDMUND
C. STRODE, City Attorney, Respondents.

Replication to Answer.

This repliant, The Lincoln Gas & Electric Light Company, saving and reserving to itself all and all manner of advantages of exceptions which may be had and taken to the manifold errors, uncertainties and insufficiencies of the answer of the defendants, the City of Lincoln, and its said officers, for replication thereunto, saith that it does and will aver, maintain and prove its said bill to be true, certain and sufficient in the law to be answered unto by the said defendants, and that the answer of the said defendants is very uncertain, evasive, and insufficient in law to be replied unto by this repliant; without that, that any other matter or thing in the said answer contained, material or effectual in law to be replied unto, and not herein and hereby well and sufficiently replied unto, confessed, or avoided, traversed or denied, is true; all which matters and things this repliant is ready to aver, maintain and prove as this honorable Court shall direct, and humbly prays as in and by its said bill it hath already prayed.

(Signed)

HALLECK F. ROSE,
Solicitor and Counsel for Complainant.

57 Indorsed: 10 A Circuit Court, United States, District of Nebraska, Lincoln Division. The Lincoln Gas and Electric Light Company vs. The City of Lincoln, et al. Replication to answer. Filed Jun- 22, 1907. Geo. H. Thummel, Clerk, By F. A. Harrison, Deputy. A. D. Halleck F. Rose, Solicitor for Complainant.

Thereupon, afterwards, to wit, on the 8th day of October, 1907. Testimony on behalf of complainant was filed in said case, a true and complete copy of which is found in volume 2 of this record.

Thereupon, afterwards, to wit, on the 7th day of February, 1908, Motion for modification of restraining order was filed in said case, which said motion is in words and figures following, to wit:

In the United States Circuit Court for the District of Nebraska,
Lincoln Division.

LINCOLN GAS & ELECTRIC LIGHT COMPANY, Complainant,

vs.

CITY OF LINCOLN et al., Defendants.

Motion for Modification of Restraining Order.

Comes now the defendants, the City of Lincoln, Francis W. Brown, Mayor of said City, and the City Attorney of said City, and moves this Honorable Court to modify the restraining order heretofore granted in the above entitled action, whereby said defendants were enjoined pendente lite from enforcing an ordinance, Numbered 432, which ordinance was passed and approved by the Mayor and Council of the City of Lincoln, Nov. 19th, 1903, and which ordinance provided that from and after December 1st, 1903, the said complainant, the Lincoln Gas & Electric Light Company, should not

58 charge, exact, demand or collect from the consumer, for gas manufactured and sold in the City of Lincoln for illuminating or heating purposes more than the sum of \$1.00 net per 1000 cubic feet; These defendants ask that said restraining order be modified in this: that the same be modified so as to contain an additional provision that said plaintiff the Lincoln Gas & Electric Light Company be required to pay into this Court for the benefit and protection of its consumers all money collected from its consumers in excess of \$1.00 net per 1000 cubic feet from December 1st, 1906 until the final determination of this action.

That such excess so collected from said consumers up till the time of the modification of said restraining order be ordered paid into court forthwith when such modification is made, and all such excess collected thereafter be ordered to be paid into this court by said complainant on the 1st day of next succeeding month and on the first day of each and every month thereafter until the final determination of this suit and upon failure of said complainant to comply with the terms of said order, then said restraining orders shall no longer be in force and effect against these defendants.

That such excess so paid into the custody of this court to be held by this court until the final determination of said suit and in case the ordinance be decreed to be legal and valid then the sum so paid into court by the complainant be refunded to the consumers in accordance with the respective amounts shown to be due them and to make such further necessary modification of said restraining order as this Court finds necessary to fully protect such consumers for the excess now being paid by them as aforesaid.

(Signed)

JOHN M. STEWART,

Attorney for Defendants and the City of Lincoln.

59 To H. F. Rose, Attorney for the Lincoln Gas & Electric Light Co.:

Your and your said Company are hereby notified that the defendants in the foregoing entitled action will file a motion of which the foregoing is a true copy, in the United States Circuit Court for the District of Nebraska, Lincoln Division: That said motion will be presented to the court at the court room of said Court, in Lincoln, Nebr. for hearing and decision on the 12th day of February, 1908, at 10 o'clock A. M. or as soon thereafter as Counsel can be heard.

(Signed)

JOHN M. STEWART,

Attorney for Defendants.

Received a copy of the foregoing notice and motion this 6th day of February, 1908.

(Signed)

HALLECK F. ROSE,

Sol. for Complainant.

Indorsed: 10-A. In the United States Circuit Court. for the District of Nebraska, Lincoln Division. Lincoln Gas & Electric Light Company, Complainant, vs. City of Lincoln et al., Defendants. Motion. Filed Feb. 7th, 1908. Geo. H. Thummel, Clerk, by J. H. McClay, Deputy. A. D.

Thereupon, afterwards, to wit, on the 6th day of July, 1908. Testimony on behalf respondents was filed in said case, a true and complete copy of which is found in volume 3 of this record.

Thereupon, afterwards, to wit, on the first day of October, 1908, Stipulation was filed in said case, which said stipulation is in words and figures following, to wit:

60 In the Circuit Court of the United States in and for the District of Nebraska.

THE LINCOLN GAS & ELECTRIC LIGHT CO., Complainant,

vs.

THE CITY OF LINCOLN et al., Defendants.

Stipulation.

The following are hereby stipulated by the parties to this suit to be facts:

First. It is stipulated that about July 6, 1908 the complainant's plant was damaged by floods caused by the overflow of Salt Creek and that it has expended in repairing such damages for labor and miscellaneous expense \$906.30, and it is further agreed that some damages, the amount of which cannot now be aggregately determined have not been repaired. And that the complainant sustained damage by reason of the inter-uption of its business on account of the aforesaid injury to its plant.

Second. It is agreed that the complainant expended for new construction in its electric department in the year- 1903 and 1907 as shown by the following statement:

Electric construction.	1906.	1907.
Electric plant	28,727.58	56,796.94
Lines and poles.....	5,832.32	4,477.91
Transformers	3,113.64	1,404.37
Meters	3,114.79	3,007.13
Arc lamps.....	260.96	16.70
Total	41,049.29	65,703.05

Third. It is further stipulated that on April 11, 1908 the following petition, was filed in the District Court of Lancaster County, Nebraska, and that a summons was duly issued on June 3, 1908 in said action and served upon the complainant herein on June 9, 1908, and that said action is now pending in said Court.

Copy of Petition.

"In the District Court of Lancaster County, Nebraska.

STATE OF NEBRASKA on the Relation of FRANK M. TYRRELL, County Att'y of Lancaster County, Nebraska, Relator,

vs.

LINCOLN GAS & ELECTRIC LIGHT COMPANY, a Corporation,
Defendant.

Information.

Comes now the State of Nebraska by Frank M. Tyrrell, County Attorney of Lancaster County, Nebraska, and alleges that he is the duly elected and qualified County Attorney of Lancaster County, Nebraska, and as such on the complaint of the City of Lincoln, and on behalf of the State of Nebraska, he brings this action and alleges and shows to the court:

1. That the defendant is a corporation organized and existing under the laws of the State of Nebraska for the purpose of owning and operating a light and power system and to manufacture and sell gas and electric current and as such has its place of business in the City of Lincoln, Nebraska.

2. That the defendant is now occupying the streets, alleys and public grounds in the City of Lincoln for its gas mains and pipes, electric light poles and wires and other equipment and appliances used in connection with its said light and power system and is furnishing by and through the same gas and electric current to a large number of the inhabitants of said City of Lincoln for lighting, heating and power purposes.

That defendant claims their right and privilege of so occupying

the streets, alleys and public grounds of said city solely as a purchaser and assignee by mesne transfers and conveyances and as successors to the privileges and property rights of a corporation known as the Lincoln Gas Company, to which last named Company the mayor and council of the City of Lincoln on or about March 12, 1872 by ordinance assumed to grant a license and permission for twenty one years only, to use and occupy the streets and alleys and public grounds of said city for the purpose of laying therein gas pipes and fixtures and to supply to the inhabitants of such city through such pipes gas for illuminating purposes.

3. Your relator avers that any right or privilege that may have been granted by said ordinance to the said Lincoln Gas Company expired according to the terms thereof at the end of twenty one years after its passage, to-wit, March 12, 1893, and no right, privilege or franchise now exists thereunder or by virtue thereof.

This relator further avers that no right, privilege or franchise was ever granted by the City of Lincoln to use or occupy its streets, alleys or public grounds for any purpose whatsoever and that defendant is now unlawfully and without right occupying the streets, alleys and public grounds of the said city for its gas pipes, mains and electric light poles and wires and other equipment and appliances connected therewith and is now usurping the rights, privileges and franchises of so using said streets, alleys and public grounds of the said city, and will continue such unlawful use and occupancy and will lay additional gas pipes and mains and erect additional electric light poles and wires unless ousted from such occupancy by this court.

Wherefore your relator prays that it be adjudged that defendant have no right, privilege or franchise to occupy the said streets, alleys and public grounds of said city or maintain therein its gas pipes, mains electric light poles and wires and other equipment or appliances in connection therewith and that a judgment of ouster be entered against defendant commanding it to remove from the streets alleys and public grounds of the City of Lincoln, its gas pipes and mains, electric light poles and wires and all appliances connected therewith.

(Signed)

FRANK M. TYR-ELL,
County Attorney, &
JOHN M. STEWART, Att'ys.

(Signed)

STATE OF NEBRASKA,
Lancaster County, ss:

Frank M. Tyrrell, being first duly sworn deposes and says that he is the County Attorney of Lancaster County Nebraska; that he has read the foregoing information and that the contents thereof are true.

(Signed)

FRANK M. TYRRELL.

Subscribed in my presence and sworn to before me this — day of April, 1908.

_____,
Notary Public.

Signed this 1st day of October, 1908. Plaintiff however objects to the competency, relevancy and materiality of the facts stated in paragraphs 2 and 3.

(Signed)

HALLECK F. ROSE,
Attorney for Complainant.

(Signed)

JOHN M. STEWART,
Attorney for City of Lincoln.

Indorsed: #10-A. In Circuit Court. The Lincoln Gas & Electric Light Co. v. The City of Lincoln, et al. Stipulation. Filed Oct. 1, 1908. Geo. H. Thummel, Clerk, By J. H. McClay, Deputy. C. D.

64 Thereupon, afterwards, to wit, at the May 1908, term of said Court, and on the first day of October, 1908, the following proceedings were had and done in said case, as appear of record in the Court Journal under date of October 1, 1908, to wit:

No. 10, Docket A.

Wm. H. Munger, D. J.

THE LINCOLN GAS & ELECTRIC LIGHT COMPANY

v.

THE CITY OF LINCOLN, FRANCIS W. BROWN, Mayor, and EDMUND C. STRODE, City Attorney of said City of Lincoln.

Now on this day this cause came on to be heard on the pleadings and the proofs, and the same was fully argued by the solicitors for the respective parties, duly submitted, and by the Court taken under advisement.

Thereupon, afterwards, to wit, on the 20th day of March, 1909, memorandum opinion was filed in said case, which said memorandum opinion is in words and figures following, to wit:

In the Circuit Court of the United States for the District of Nebraska,
Lincoln Division.

10-A.

LINCOLN GAS & ELECTRIC LIGHT COMPANY, Complainant,

vs.

THE CITY OF LINCOLN et al., Defendants.

Memorandum Opinion.

W. H. MUNGER, D. J.:

Complainant is a corporation organized under the laws of the State of Nebraska, owns and operates a gas plant in the City of Lincoln, Nebraska, and furnishes to its patrons gas for lighting, heating and power purposes. The City of Lincoln, in March, 1872, granted unto the Lincoln Gas Company, a corporation, organized under the laws of the state of Nebraska, a franchise granting the use of the streets, lanes and alleys in the city, for the purpose of constructing and maintaining a gas plant, and said

Lincoln Gas Company constructed a gas plant, of which the complainant, about the year 1901, became the owner.

In November, 1903, the City Council of the City of Lincoln passed an ordinance, providing that no gas company should charge, exact, demand or collect, from any consumer, for gas manufactured or sold in said city, more than the sum of one dollar net per one thousand cubic feet, which ordinance provided certain penalties for its violation, said ordinance to take effect and be in force from and after December 1st, 1906.

In December, 1906, said City Council also passed an ordinance imposing an occupation tax upon all gas companies manufacturing and furnishing gas to the inhabitants of the City of Lincoln of two and one-half per cent upon the gross receipts of said company, said ordinance to take effect January 1st, 1907.

This action is brought to enjoin the enforcement of said ordinance, the jurisdiction of this court being invoked upon the ground of a federal question, in that the rate of one dollar for each one thousand cubic feet of gas will deprive complainant of its property without just compensation, in violation of the provisions of the Constitution of the United States.

The ordinance imposing an occupation tax is alleged to be unconstitutional in that it violates the provisions of section 6, Article IX, of the Constitution of the State of Nebraska, which requires that such a tax shall be uniform upon persons and property, it being alleged that the Lincoln Traction Company operates and maintains an electric lighting plant and furnishes to the city and its inhabitants electricity for light, heat and power purposes.

A large amount of testimony has been taken for the purpose of determining the value of complainant's gas plant, and the reasonable expense for operating the same. In determining for
66 what amount the plant could be reconstructed I have accepted in the main the testimony of complainant's witnesses as being the most satisfactory, and I find that the plant could be reconstructed for the following sums:

Coal gas apparatus.....	\$80,605.00	
Water gas apparatus.....	29,278.00	
Mains in dirt streets.....	90,578.00	
Mains in paved streets.....	130,027.00	
Gas services, &c.....	107,106.82	
Gas meters in use.....	38,282.90	
Meter connections.....	6,304.00	
Piping for gas ranges.....	16,500.00	
		<hr/>
		\$496,681.72
Engineering expenses (2½ per cent)....	12,417.04	
Real estate.....	4,000.00	
Present value of buildings.....	24,643.00	
Contingent expenses in construction.....	25,000.00	
Cost of organizing company.....	3,000.00	
		<hr/>
		\$565,741.76

While the evidence as to the depreciation is somewhat vague and indefinite, I think, upon the items aggregating said \$493,681.72, there should be deducted for depreciation ten per cent, amounting to the sum of \$49,368.17, making the total present valuation of the plant \$516,073.59; but it is apparent that, for the successful and economical operation of the plant, a certain amount of working capital is required. This amount I find to be \$50,000.00, making the total value of complainant's investment, upon which it is entitled to a reasonable return, \$566,073.59.

While it is true the testimony shows that the complainant has not such working capital but has purchased upon credit the supplies necessary to operate, yet I think that, in determining what is a reasonable compensation, a working capital should be considered.

I do not allow anything as the value of complainant's franchise. It does not appear from the allegations of the bill or proofs that anything was paid to the city for the franchise; the city simply granted to complainant, without compensation, the right to use the public streets and alleys for the purpose of constructing and
67 operating its plant. This was a mere right and privilege to complainant and did not involve the expenditure of money.

While it is true a franchise is a property right, which will protect complainant in its use of the streets and alleys for the purposes expressed, yet it involves no investment of money, complainant's investment being in its tangible property under authority of the franchise, and the public ought not to be taxed for a privilege which it has voluntarily granted.

I do not think there is anything in the case of *Wilcox v. Consolidated Gas Co.*, 129 Sup. Ct. Rep., 192, which conflicts with this view. In that case the legislative enactment providing for consolidation of various companies expressly required that a value should be given to the franchise of the respective companies. For that reason the court sustained the value of the franchise thus fixed, but refused to recognize any increased value accruing during subsequent years by reason of the large increase in the tangible property from extension, &c.

Whether a rate of one dollar per thousand for gas would furnish an adequate return upon the investment of \$566,073.59 would depend, of course, upon the net receipts which could be applied in dividends. The net receipts of the company for the year 1907 were \$73,851.83—this on the basis of the company's charge of \$1.20 per thousand. A reduction of twenty cents per thousand, as required by the ordinance, would have reduced the receipts, upon the amount of gas sold in 1907, in the sum of \$35,873.23, thus reducing the profit to \$37,978.57.

While the plant has been kept in a good state of preservation, needed repairs &c. having been fully made, and chiefly charged to expense account, something should be allowed as a fund to be set apart for what is denominated a "Depreciation Fund." This I find to be \$8,000.00 per year, leaving the net sum applicable as dividends to stockholders the sum of \$29,978.57, or fifty-two and a fraction

68 mills on the dollar. This in on the assumption that the occupation tax of two and one-half per cent is invalid. The occupation tax of two and one-half per cent for the — 1907 would have amounted to \$4,484.15.

This occupation tax I think invalid, as violating the Constitution of the State of Nebraska, requiring it to be uniform upon persons and property. In my judgment, an electric plant, which furnishes to the public light, heat and power should be classed the same as a gas plant, which furnishes to the public light, heat and power. The fact that one furnishes the light, heat and power by means of an electric current,—the other by a current of gas—does not, in my judgment justify a difference in classification. So far as the patrons are concerned, it is results that are sought for, and it is results which the respective parties furnish the public,—results being light, heat and power. (See as to classification, *State vs. Farmers & Merchants Irrigation Co.*, 59 Neb., 1; *Rosenbloom vs. State*, 64 Neb., 342.

The ordinance imposing the occupation tax being, in my judgment, invalid, no deduction should be made from the net revenues for that purpose.

It is claimed that the ordinance reducing the price of gas to one dollar per thousand fixes a flat rate to all consumers alike; that as to the smaller consumers, gas would be furnished at a loss; that for this reason, the ordinance is invalid.

If the total income derived from the rates prescribed by the ordinance will yield a reasonable return to complainant, upon its investment, I do not think it can complain (*See Wilcox vs. Consolidated Gas Co.*, supra).

It appears from the evidence in this case that complainant's outstanding bonded indebtedness is \$1,129,000.00, and that its stock is \$2,500,000.00. The stock and bonds are each grossly in excess of the value of complainant's plant and grossly in excess of the cost of construction. Complainant's construction account shows that the entire cost of the plant to June 30th, 1907, was \$603,278.14.

69 The evidence shows that complainant and its predecessor, to obtain money with which to construct the plant, sold its bonds and stock at an enormous discount, and I do not think that, in determining the reasonableness of rates the amount thereof should be considered. While complainant, I think, is entitled to at least six per cent upon the money invested, it does not appear that the reduced rate would not yield that sum. It is quite probable that the reduced rate would considerably increase the consumption of gas and thus increase complainant's net profits.

The record shows that in June, 1904, complainant voluntarily reduced its rates from approximately \$1.50 per thousand to \$1.20, and the amount of gas consumed, and net profits resulting, considerably increased. The inquiry in cases of this character is not alone what has complainant theretofore earned but it is what will be the effect of the ordinance reducing the rate upon the future net earnings of the company, and it devolves upon complainant to show not that the past rates have not produced a reasonable return but that the rate

prescribed by the ordinance will not in future produce a reasonable return.

The questions involved in this case, I think, have been recently disposed of by the Superior Court, in the cases of Knoxville vs. Knoxville Water Co., 29 Sup. Ct. Rep., 148; Wilcox vs. Consolidated Gas Co., id., 192; Railroad Commission of La. vs. Cumberland Telegraph & Telephone Co., decided February 23rd, 1909.

The question as to whether or not complainant's franchise is a perpetual one or has already terminated has been argued but that question is not properly involved in the case. The ordinance prescribing the rates to be charged, in effect, admits that complainant is properly occupying the streets and alleys, and whether such occupancy is by reason of a perpetual franchise or by sufferance, is not involved in the proper determination of this case.

70 For the reasons given, an injunction will be awarded against the enforcement of the ordinance imposing an occupation tax. The bill in all other respects will be dismissed without prejudice to the bringing of a new action when it is shown, after compliance with the ordinance fixing rates that such rates will not yield a reasonable return to complainant.

Counsel for defendant will prepare the proper decree and submit it to counsel for complainant before presenting to the court for signature.

Indorsed: 10-A. Circuit Court, United States, District of Nebraska. Lincoln Gas & Electric Light Co., Complainant, vs. The City of Lincoln, et al., Defendants. Memorandum opinion. Filed Mar. 20, 1909. Geo. H. Thummel, Clerk, By J. H. McClay, Deputy. A. D. M. O. 19. P. 82. Book 1.

Thereupon, afterwards, to wit, At the October, 1908, term of said court, and on the 6th day of April, 1909, the following decree was signed and filed in said case, and duly entered of record in the Court Journal under date of April 6, 1909, to wit:

In the Circuit Court of the United States for the District of Nebraska.

LINCOLN GAS & ELECTRIC LIGHT COMPANY, Complainant,
vs.

CITY OF LINCOLN, FRANCIS W. BROWN, Mayor; EDMUND C. STRODE,
City Attorney of said City of Lincoln, Defendants.

Decree.

This cause came on for hearing upon the pleadings and the evidence and the argument of counsel having heretofore been
71 submitted to the court, and upon due consideration whereof the Court finds for the defendants and finds no equity in the bill of complainant, so far as the same relates to the ordinance of the City of Lincoln establishing a rate of charges for gas in such city,

and the same is hereby dismissed and the restraining order heretofore granted against the enforcement of such ordinance is hereby dissolved, without prejudice to the commencement of a new action.

The Court further finds that the ordinance of the City of Lincoln levying an occupation tax against the complainant violates the constitution of the State of Nebraska and is for that reason illegal and void, and that the enforcement of the same as to complainant should be perpetually enjoined.

It is therefore adjudged and decreed that a permanent injunction be and the same is hereby granted perpetually enjoining the City of Lincoln from enforcing said occupation tax ordinance.

It is further adjudged that the complainant pay the costs of this action.

(Signed)

WM. H. MUNGER, *Judge*.

Clerk enter this decree.

(Signed) WM. H. MUNGER, *Judge*.

Indorsed: 10-A. The Lincoln Gas & Electric Light Co. v. The City of Lincoln, et al. Decree. Filed Apr. 6. 1909. Geo. H. Thummel, Clerk, By J. H. McClay, Deputy. A. D. Journal.

Thereupon, afterwards, to wit, on the 6th day of April, 1909, motion on behalf of defendants to modify the opinion was filed in said case, which said motion is in words and figures following, to wit:

72 In the Circuit Court of the United States in and for the District of Nebraska.

LINCOLN GAS & ELECTRIC LIGHT COMPANY, a Corporation,
Complainant,

vs.

CITY OF LINCOLN et al., Defendants.

Motion to Modify Opinion.

Comes now the defendant in the above entitled cause and moves the court to modify its opinion herein as follows:

1. Show in such opinion that the company's stock and bond issue cover both gas and electric light department and that the latter constitutes about one third of the entire value of complainant's property.

2. So that it may appear therein that the construction account is reduced by the duplication of 1900 construction account according to Mr. Honeywell's statement \$22,538 as is shown by such statement and in testimony of Mr. Wiggins (2-152), also commission on sale of bonds \$17,015 and costs of original plant, \$54,247, not now in existence.

3. To show that the net earnings of \$73,852 for 1907 as admitted by the complainant should be increased in the sum of \$9,596, the

same being items improperly charged to expense as shown on pages four (4) and forty-two (42) of defendant's brief.

4. To show the actual cost of complainant for the years 1906 and 1907 for laying services and mains and that the application of the same to complainant's entire system would show the reconstruction value of the same to be about \$100,000 less than the amount as shown by complainant's expert witness, given by the court in such opinion. Reference to the evidence as to such actual cost, appearing on pages 24 to 26 of defendant's brief.

73 5. To eliminate from the value placed on complainant's property the item for \$16,500 piping for gas ranges, for the reason that the same is not the property of the complainant and for the further reason that the cost of the same is charged to the expense account.

6. To eliminate from the valuation of complainant's property the item of \$50,000 working capital for the reason that complainant is not entitled to earn dividends on that which it does not own.

7. To refer to the occupation tax ordinance only as a matter for construction by the state courts.

Respectfully submitted,

(Signed)

JOHN M. STEWART,

Attorney for Defendants.

Indorsed: #10-A. In the Circuit Court of United States in and for the District of Nebraska, Lincoln Division. Lincoln Gas & Electric Light Company Complainant vs. City of Lincoln. Motion on behalf of defendants to modify the opinion. Filed Apr. 6, 1909. Geo. H. Thummel, Clerk By J. H. McClay, Deputy. A. D.

Thereupon, afterwards, to wit, on the 6th day of April, 1909, motion on behalf of defendants to modify decree was filed in said case, which said motion is in words and figures following, to wit:

In the Circuit Court of the United States in and for the District of Nebraska.

LINCOLN GAS & ELECTRIC LIGHT COMPANY, a Corporation,
Complainant,

vs.

CITY OF LINCOLN et al., Defendants.

Motion to Modify the Decree and Opinion.

74 Comes now the defendants in the above entitled cause and moves the court to modify the decree heretofore entered herein by omitting therefrom that part adjudging the occupation tax ordinance invalid and granting a permanent injunction against the same for the following reasons:

1. The invalidity of the same under the laws and constitution of the State of Nebraska is not charged in the bill of complaint and no such issue was involved.

2. The bill of complaint prayed for no relief against such occupation tax ordinance.

3. The evidence adduced herein does not sustain such part of the decree.

4. This court is and was without jurisdiction to determine the question of the validity of such occupation tax ordinance under the constitution and laws of the State of Nebraska, or to enjoin the enforcement of the same.

(Signed)

By JOHN M. STEWART,
Attorney for Defendant.

Indorsed: #10-A. In the Circuit Court District of Nebraska Lincoln Division. Lincoln Gas & Electric Light Company Complainant vs. City of Lincoln et al. Motion to modify decree. Filed Apr. 6, 1909. Geo. H. Thummel, Clerk, By J. H. McClay, Deputy. A. D.

Thereupon, afterwards, to wit, on the 10th day of April, 1909, petition for allowance of appeal by complainant was filed in said case, which said petition is in words and figures, following to wit:

75 In the Circuit Court of United States for the District of Nebraska.

LINCOLN GAS & ELECTRIC LIGHT COMPANY, Complainant,
vs.

CITY OF LINCOLN, FRANCIS W. BROWN, Mayor; EDMUND C. STRODE,
City Attorney of said City of Lincoln, Defendants.

Petition for Allowance of Appeal.

The above named complainant conceiving itself aggrieved by the order and decree made and entered in the above entitled cause on the — day of April, 1909, wherein and whereby it was ordered, adjudged and decreed that so far as the complainant's bill related to the ordinance of the city of Lincoln establishing a rate of charges for gas in such city was dismissed and the restraining order theretofore granted against the enforcement of such order was dissolved, and the costs of said action were adjudged against the complainant herein, amounting to \$—, does hereby appeal from said order and decree from the — day of April, 1909, to the Supreme Court of United States of America, for the reasons specified in the assignment of errors filed herein, and it prays that this appeal may be allowed, and that a transcript of the record, papers and proceedings upon which said order and decree was made duly authenticated, may be sent to the Supreme Court of United States of America.

(Signed)

HALLECK F. ROSE AND
E. C. STRODE,
Solicitor- for Complainant.

Indorsed: No. 10. Docket A. In the Circuit Court of
 76 United States for the District of Nebraska. Lincoln Gas &
 Electric Light Company, Complainant, vs. City of Lincoln,
 Francis W. Brown, Mayor; Edmund C. Strode, City Attorney of
 said city of Lincoln, Defendants. Petition for Allowance of Ap-
 peal. Filed Apr. 10, 1909. Geo. H. Thummel, Clerk, By J. H.
 McClay, Deputy. A. D.

Thereupon, afterwards, to wit, on the 10th day of April, 1909,
 Assignment of Error was filed in said case, which said assignment of
 error is in words and figures following, to wit:

In the Circuit Court of United States for the District of Nebraska.

LINCOLN GAS & ELECTRIC LIGHT COMPANY, Complainant,
 vs.
 CITY OF LINCOLN, FRANCIS W. BROWN, Mayor; EDMUND C. STRODE,
 City Attorney of said City of Lincoln, Defendants.

Assignment of Error.

Comes now the complainant and files the following assignment of
 error upon which it will rely upon its appeal from the decree made
 by this honorable court on the — day of April, 1909, in the above
 entitled cause.

1. That the United States Circuit Court in and for the District
 of Nebraska erred in dismissing complainant's bill, in so far as it
 relates to the ordinance of the City of Lincoln establishing a rate of
 charges for gas in such City.

2. In dissolving the restraining order theretofore granted by said
 court against enforcement of the ordinance of the City of Lincoln
 establishing a rate of charges for gas in such City.

3. In finding and determining that the plant of the complainant
 could be reconstructed for the sum of \$565,741.76.

77 4. In finding and determining that there should be de-
 ducted from the said \$565,741.76 the sum of \$49,688.17 for
 depreciation.

5. In finding and determining the present value of complainant's
 plant to be \$516,073.59.

6. In finding and determining the present value of complain-
 ant's buildings to be \$24,643.00 the proof showing affirmatively
 that the cost of said buildings and the present value thereof to be
 \$37,286.00.

7. In finding and determining the value of the meter connections
 to be \$6,304.00, the proof showing affirmatively the cost and value
 thereof to be \$13,184.00.

8. In finding and determining the item of contingent expense to
 be \$25,000.00, the proof showing affirmatively the item to be
 \$67,884.09.

9. In finding and determining the cost of organizing the Com-

pany to be \$3,000.00, the proof showing affirmatively the cost to be \$24,950.00.

10. In finding and determining that nothing should be allowed as interest on the money employed in constructing the plant during the course of its construction, the proof showing affirmatively the item to be \$31,550.00.

11. In finding and determining that nothing should be allowed covering the expense of obtaining the money for the original cost of complainant's plant, the proof showing affirmatively the item to be \$149,512.10; and in finding and determining that *should be nothing* allowed in the way of interest on the above item, the proof showing affirmatively the amount to be \$7,500.00.

12. In finding and determining that nothing be allowed for the franchise in fixing and determining the value of complainant's property or plant, the proof showing affirmatively the value of such franchise was in excess of \$100,000.00, and that the complainant was taxed thereon by the City of Lincoln on a valuation of \$60,000.00.

13. In finding and determining that the complainant should be allowed for depreciation on its plant or property the sum of \$8,000.00 per year only, the proof showing affirmatively that a reasonable annual sum for such depreciation would be five per cent of the value of complainant's property.

14. In finding and determining that the ordinance in question was valid, notwithstanding the proof showing affirmatively that under the ordinance the complainant would be required to serve more than seventy-five per cent of its patrons at less than cost.

15. In finding and determining, based on the earnings for the year 1907, that fifty-two and a fraction mills net profits on the valuation found and determined by the court would not deprive complainant of its property without just compensation, in violation of the provisions of the constitution of United States.

16. In not finding and determining the validity of complainant's franchise, and the life of said franchise.

17. In not finding and determining the validity of the ordinance, based on the value of complainant's property and the net earnings thereof as of the date said ordinance was passed and took effect according to its terms, to wit: December 1, 1906.

In order that the foregoing assignment of errors may be and appear of record the complainant presents the same to the court, and prays that such disposition be made thereof as in accordance with law and the statutes of the United States in such cases made and provided, and complainant prays a reversal of the decretal order and decree of dismissal made and entered by said court, as hereinbefore set forth and referred to.

(Signed)

HALLECK F. ROSE, AND
E. C. STRODE,

Solicitor- for Complainant.

79 Indorsed: No. 10. Docket A. In the Circuit — of United States for the District of Nebraska. Lincoln Gas & Electric Light Company, Complainant, vs. City of Lincoln, Francis W.

Brown, Mayor; Edmund C. Strode, City Attorney of said City of Lincoln, Defendants. Assignment of Error. Filed Apr. 10, 1909. Geo. H. Thummel, Clerk, By J. H. McClay, Deputy. A. D. Halleck F. Rose and E. C. Strode, attorneys for Complainant.

Thereupon, afterwards, to wit, at the October, 1908, term of said court, and on the 5th day of May, 1909, the following Order was signed and filed in said case, and duly entered of record in the Court Journal under the date of May 5, 1909, to wit:

In the Circuit Court of the United States in and for the District of Nebraska.

LINCOLN GAS & ELECTRIC LIGHT COMPANY, Complainant,
vs.
CITY OF LINCOLN et al., Defendants.

Order.

The motion of defendant for rehearing, and for modification of decree and opinion, heretofore entered, having been duly heard, the same is overruled.

(Signed)

WM. H. MUNGER, *Judge.*

Dated Omaha, May 5th, 1909.

To the Clerk:

Please enter this order.

(Signed)

WM. H. MUNGER, *Judge.*

Indorsed: 10-A. In Circuit Court. Lincoln Gas & Electric Light Co. v. The City of Lincoln, et al. Filed May 5, 1909. Geo. H. Thummel, Clerk, By J. H. McClay, Deputy. A. D. Order overruling motion to modify decree and opinion.

Thereupon, afterwards, to wit, at the October, 1908, term of said court, and on the 5th day of May, 1909, the following Order Allowing Appeal was signed in said case, and filed in the clerk's office on May 27, 1909, and duly entered of record in the Court Journal under date of May 5, 1909, to wit:

In the Circuit Court of the United States in and for the District of Nebraska.

LINCOLN GAS AND ELECTRIC LIGHT COMPANY, a Corporation,
Complainant,

vs.

THE CITY OF LINCOLN, NEBRASKA, et al., Defendants.

Order Allowing Appeal.

This cause came on for hearing this 5th day of May, 1909, upon the application of the complainant for an allowance of an appeal to the Supreme Court of the United States, and for the fixing of a supersedeas bond, and upon consideration whereof it is ordered that said appeal be and the same hereby is, allowed, upon fixing a cost bond in the sum of two hundred and fifty dollars (\$250.00); it is further ordered that the injunction heretofore granted be restored and continued in force until the appeal is heard and determined in the Supreme Court of the United States, provided, the Complainant, the Lincoln Gas & Electric Light Company, shall, within twenty days from this date make and file in this court a good and sufficient bond with approved sureties in the penal sum of one hundred and fifty thousand dollars (\$150,000.00), payable to the clerk of this court and his successors in office, for the benefit of all whom

81 it may concern, conditioned that, in the event that the decree heretofore entered herein dismissing complainant's bill is affirmed by the Supreme Court of the United States, it will, on demand, pay to the party or parties entitled thereto all overcharges for gas which it may have exacted in violation of Ordinance No. 432 of the City of Lincoln, regulating the price of manufactured gas and fixing the price thereof at One Dollar per thousand cubic feet, passed November 12th, 1906, by the Council of said City, and approved November 19th, 1906, by the Mayor, and taking effect January 1st 1907, since injunction was first awarded herein, to-wit, December 27th, 1906, and that it will in like manner pay to the parties entitled thereto all such overcharges, if any, it may continue to exact in violation of said ordinance during the pendency of the appeal, said obligation to become void if the ordinance be pronounced void by the Supreme Court of the United States.

Dated this 5th day of May, 1909.

(Signed)

WM. H. MUNGER, *Judge.*

Indorsed: 10-A. In Circuit Court. The Lincoln Gas & Electric Light Co. v. The City of Lincoln. Order Allowing Appeal. Filed May 27, 1909. Geo. H. Thummel, Clerk, By J. H. McClay, Deputy. A. D.

Thereupon, afterwards, to wit, on the 26th day of May, 1909, Bond on Appeal was filed in said court, which said bond is in words and figures following, to wit:

In the Circuit Court of the United States in and for the District of Nebraska.

LINCOLN GAS & ELECTRIC LIGHT COMPANY, a Corporation, Complainant,

vs.

THE CITY OF LINCOLN, NEBRASKA, et al., Defendants.

82 Know all men by these presents, that Lincoln Gas and Electric Light Company, a corporation under the Laws of the State of Nebraska, the complainant herein, as principal, and National Surety Company, a corporation under the Laws of the State of New York, as surety, are held and firmly bound unto the Clerk of the Circuit Court of the United States, in and for the District of Nebraska, in the penal sum of One hundred and fifty thousand (\$150,000.00) Dollars, lawful money of the United States, to be paid to the said Clerk, and his successors in office, for the benefit of all whom it may concern, for which payment, well and truly to be made, the said Principal and Surety, hereby bind themselves, their successors and assigns, jointly and severally, firmly by these presents.

Sealed with our seals and dated this 10th day of May, 1909.

Whereas, by an order duly made and entered herein on the 5th day of May, 1909, it was ordered that the appeal of the above named complainant be allowed, and it was further ordered that the injunction heretofore granted herein be restored and continued in force until said appeal is heard and determined in the Supreme Court of the United States, provided the complainant above named, within twenty (20) days of the date of said order, make and file in the above named Court, a good and sufficient bond in the penal sum of One hundred and fifty thousand (\$150,000.00) Dollars, conditioned as hereinafter provided.

Now, therefore, the condition of this instrument is, and the said Principal and Surety hereby covenant and agree, that in the event that the decree heretofore entered herein dismissing the complainant's bill is affirmed by the Supreme Court of the United States, it will, on demand, pay to the party or parties entitled thereto all overcharges for gas which it may have exacted in violation of

83 Ordinance No. 432 of the City of Lincoln, regulating the price of manufactured gas and fixing the price thereof at One Dollar per thousand cubic feet, passed November 12th, 1906, by the Council of said City, and approved November 19th, 1906, by the Mayor, and taking effect January 1st, 1907, since injunction was first awarded herein, to wit: December 27th, 1906, and that it will in like manner pay to the parties entitled thereto all such overcharges, if any, it may continue to exact in violation of said ordinance during the pendency of the appeal, said obligation to become void if the

ordinance be pronounced void by the Supreme Court of the United States.

LINCOLN GAS AND ELECTRIC LIGHT
COMPANY,

(Signed) By L. P. FUNKHOUSER, *Vice Pres't.*

[CORPORATE SEAL.]

Attest:

(Signed) HARRY WARNER, *Sec'y.*

NATIONAL SURETY COMPANY,

(Signed) By LEONARD DAMMANN, *Vice-President.*

[CORPORATE SEAL.]

Attest:

(Signed) WM. A. THOMPSON,
Assistant Secretary.

Approved

(Signed) WM. H. MUNGER, *Judge.*

STATE OF NEBRASKA,

County of Lancaster:

On the 21st day of May, 1909, before me personally came L. P. Funkhouser to me known, who being by me duly sworn did depose and say that he resides in Lincoln, Nebraska; that he is the vice president of the Lincoln Gas and Electric Light Company, the corporation described in and who executed the above instrument; that he knew the seal of said corporation; that the seal affixed to
84 said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that he signed his name thereto by like order.

(Signed)

HOMER HONEYWELL,

[NOTARIAL SEAL.]

Notary Public.

Commission expires April 7, 1914.

Affidavit, Acknowledgment, and Justification by Guarantee or Surety Company.

STATE OF NEW YORK,

County of New York, ss:

On this 10th day of May one thousand nine hundred and nine before me personally came Leonard Dammann, known to me to be the vice-president of the National Surety Company, the corporation described in and which executed the within and foregoing Bond of Lincoln Gas and Electric Light Company as a surety thereon, and who, being by me duly sworn, did depose and say that he resides in the City of New York, State of New York; that he is the Vice-president of said Company, and knows the corporate seal thereof; that the said National Surety Company is duly and legally incorporated

under the laws of the State of New York; that said Company has complied with the provisions of the Act of Congress of August 13th, 1894, that the seal affixed to the within Bond of Lincoln Gas and Electric Light Company is the corporate seal of said National Surety Company, and was thereto affixed by order and authority of the

Board of Directors of said Company, and that he signed his name thereto by like order and authority as vice-president of said company, and that he is acquainted with Wm. A. Thompson and knows him to be the Assistant Secretary of said Company; and that the signature of said Wm. A. Thompson subscribed to said Bond is in the genuine handwriting of said Wm. A. Thompson, and was thereto subscribed by order and authority of said Board of Directors, and in the presence of said deponent; and that the assets of said company, unencumbered and liable to execution exceed its debts and liabilities of every nature whatsoever, by more than the sum of two million dollars.

That ——— is our agent to acknowledge service in the Judicial District wherein this bond is given.

(Signed)

LEONARD DAMMANN.

(Deponent's signature.)

Sworn to, acknowledged before me, and subscribed in my presence this 10th day of May, 1909.

(Signed)

ETTA B. GEWECKE.

(Officer's signature, description and seal.)

[NOTARIAL SEAL.]

Notary Public for County of Kings.

Certificate filed in New York, Queens, Richmond, Westchester, & Nassau Counties.

National Surety Company of New York.

Financial Statement, March 31st, 1909.

Wm. B. Joyce, President.

David W. Armstrong, Jr., Secretary.

Assets.

Par value.		Market value.
\$220,500	United States Government Bonds.....	\$224,195.00
941,000	City of New York Bonds.....	893,081.25
30,000	City of Cincinnati, Ohio, "Branch Hospital Bonds" 3.65%, 1931.....	30,000.00
86		
25,000	City of Richmond, Va. Registered 4% 1941	25,250.00
10,000	Atchison, Topeka & Santa Fe R. R. 4%, 1995	10,100.00
20,000	Atchison, Topeka & Santa Fe R. R. 4%, 1958	19,100.00
20,000	Atlantic Coast Line R. R. 4%, 1952....	19,500.00

Par value.		Market value.
20,000	Baltimore & Ohio R. R. "Prior Liens," 3½%, 1925.....	18,750.00
20,000	Baltimore & Ohio R. R. "Gen'l Mtge." 4%, 1948.....	20,150.00
15,000	Central R. R. of N. J. 5%, 1987.....	19,237.50
15,000	Central Pacific R. R. 4%, 1949.....	14,662.50
10,000	Chesapeake & Ohio R. R. 5%, 1939.....	11,600.00
20,000	Chicago & Eastern Illinois R. R. 4%, 1955.....	17,600.00
10,000	Chicago, Rock Island & Pacific R. R. "Gen'l Mtge." 4%, 1988.....	10,050.00
10,000	Chicago & Indiana Southern R. R. 4%, 1956.....	9,650.00
9,000	Chicago & Western Indiana R. R. 6%, 1932.....	8,707.50
10,000	Chicago, Burlington & Quincy R. R. "Ill. Div." 4%, 1949.....	10,225.00
10,000	Chicago, Burlington & Quincy R. R. "Gen'l Mtge." 4%, 1958.....	10,050.00
10,000	Cleveland, Cincinnati, Chicago & St. Louis R. R. 4%, 1993.....	9,800.00
20,000	Colorado & Southern Ry. Co. "Refdg. & Extension Mtge." 4½%, 1935.....	19,925.00
10,000	Delaware & Hudson R. R. "Refdg." 4%, 1943.....	10,225.00
10,000	Delaware & Hudson R. R. "Cons." 4%, 1916.....	10,050.00
10,000	Iowa, Minn. & Northwestern Ry. Co. 3½% 1935.....	9,350.00
10,000	Kentucky Central R. R. 4%, 1987....	9,900.00
10,000	Lake Shore & Michigan Southern R. R. 4%, 1931.....	9,562.50
15,000	Lehigh Valley R. R. "Gen'l Mtge." 4%, 2003.....	14,625.00
10,000	Louisville & Nashville R. R. 4%, 1940...	10,125.00
25,000	Manhattan Railway Company, 4%, 1990.....	25,062.50
20,000	Missouri, Kansas & Oklahoma R. R. 5%, 1942.....	22,250.00
15,000	Missouri, Kansas & Texas R. R. 4%, 1990.....	14,962.50
20,000	Missouri, Kansas & Texas R. R. 100 yr. Refdg. Mtge. 4%, 2004.....	17,400.00
10,000	New York Central Lines "Equipment," 5%, 1919.....	10,675.00
10,000	New York Central & Hudson River R. R. 4%, 1934.....	9,475.00
25,000	New York, New Haven & Hartford R. R. "Deb." 4%, 1956.....	23,875.00
20,000	Northern Pacific & Great Northern R. R. "Joint" 4%, 1921.....	19,625.00

20,000	Oregon R. R. & Navigation Co. 4%, 1946	19,850.00
10,000	Pennsylvania Company 4%, 1931	9,900.00
10,000	Pennsylvania R. R. "Cons." 3½%, 1915	9,625.00
5,000	Pennsylvania R. R. "Consols." 4%, 1958	5,225.00
10,000	Pittsburg, Cincinnati, Chicago & St. Louis R. R. 4%, 1957	10,200.00
10,000	Union Pacific R. R. 4%, 1927	10,300.00
10,000	Union Pacific R. R. "1st Lien and Refdg." 4%, 2008	9,900.00
25,000	United States Steel Corporation 5%, 1963	25,781.25
100 shares	Atlanta & Charlotte Air Line R. R. (7%, Guar. by. So. Ry.)	19,000.00
100	" Chicago, Milwaukee & St. Paul Ry. (Common)	14,550.00
200	" Cleveland & Pittsburg R. R. (7% Guar. by Penn. R. R.)	17,800.00
100	" Delaware & Hudson Co.	17,850.00
100	" Detroit, Hillsdale & S. W. R. (4% Guar. by L. S. & M. R. R.)	10,050.00
100	" Great Northern Ry. Preferred 7%	14,525.00
100	" Illinois Central R. R. "Leased Lines" (4% Guar. by Ill. Ctl.) ..	10,200.00
100	" Illinois Central R. R. Co.	14,475.00

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400 shares	Kansas Cy., Ft. Scott & Memphis R. R. (4% Guar. by St. L. & San Fran. R. R.)	30,200.00
200	" Manhattan Railway Co. (7% Guar. by Inter. R. T.)	29,100.00
400	" Morris & Essex (7% Guar. by D. L. & W. R. R.)	36,900.00
400	" Nashville & Decatur R. R. (7½% Guar. by L. & N. R. R.)	18,750.00
100	" New York, Lackawanna & Wstn. R. R. (5% Guar. by D., L. & W. R. R.)	12,825.00
100	" Northern Pacific Railway	14,300.00
100	" Pittsburg, Ft. Wayne & Chicago Ry. (7% Guar. by Penn. R. R.)	17,650.00
100	" Rome, Watertown & O-densburg R. R. (5% Guar. by N. Y. Cent.) ..	12,700.00
400	" Lehigh Valley R. R. "Common" ..	29,300.00
200	" Southern Pacific R. R. Preferred ..	25,000.00
400	" Union Pacific R. R. Preferred	37,800.00
500	" Wisconsin Central Ry. Preferred ..	43,375.00
Real Estate	.....	129,748.48
Mortgage Loans (First Liens)	.....	24,061.89

Premiums in course of Collection, written since January 1, 1909.....	352,236.81
Accounts Receivable	19,538.52
Accrued Interest	25,407.62
Cash in bank and offices.....	437,950.28

\$3,134,871.10

Liabilities.

Reserve for Re-Insurance.....	1,083,956.61
Reserve for Contingent Claims.....	450,971.96
Other Liabilities, including commissions on unpaid premiums	115,416.16
Capital stock	750,000.00
Surplus	734,526.37

\$3,134,871.10

STATE OF NEW YORK,

County of New York, ss:

William A. Thompson, of New York, being duly sworn, deposes and says that he is assistant Secretary of the National Surety Company, of New York, and that the above and foregoing is a full, true and correct statement of the financial condition of said Company on the thirty-first day of March, A. D. 1909.

(Signed)

WM. A. THOMPSON.

Subscribed in my presence and sworn to before me this 18th day of May A. D. 1909.

(Signed)

ETTA B. GEWECKE,

[NOTARIAL SEAL.]

Notary Public for County of Kings.

Certificate filed in New York, Queens, Richmond, Westchester, & Nassau Counties.

88 Indorsed: #10-A. The Lincoln Gas & Electric Light Co. v. The City of Lincoln, et al. Bond on appeal, with approval of Court. Filed May 26, 1909. Geo. H. Thummel, Clerk, By J. H. McClay, Deputy. A. D. M. R. —

Thereupon, afterwards ~~at~~ wit: On the second day of May, 1909, a citation was duly signed in said case, and filed on the third day of May, 1909, with acceptance of service indorsed thereon, the following of which is the original:

89 UNITED STATES OF AMERICA, 88:

The President of the United States to The City of Lincoln, Francis W. Brown, Mayor, and Edmund C. Strode, City Attorney of said City of Lincoln, Greeting:

You are hereby cited and admonished to be and appear at the United States Supreme Court, to be held at the city of Washington, in the District of Columbia, United States of America, within thirty days from the date of this writ, pursuant to an appeal filed in the clerk's office of the Circuit Court of the United States for the district, of Nebraska, Lincoln Division, wherein The Lincoln Gas & Electric Light Company is plaintiff and you are defendants, to show cause, if any there be, why the judgment in the said appeal mentioned should not be corrected, and speedy justice should not be done to the parties in that behalf.

Witness, the Honorable Melville W. Fuller, Chief Justice of the Supreme Court of the United States of America, this 2 day of June, A. D. 1909.

[Seal United States Circuit Court, District of Nebraska,
Lincoln Division.]

W. H. MUNGER,
*United States District Judge, Presiding
in the Circuit Court.*

Attest:

GEO. H. THUMMEL,
*Clerk of the United States Circuit Court
for the District of Nebraska.*
By J. H. McCLAY, *Deputy,*
Deputy in and for Lincoln Division.

Service of the within citation and receipt of a copy thereof admitted this 3rd day of June, A. D. 1909.

JOHN M. STEWART,
Solicitor for the Appellees and Respondents in Lower Court.

[Endorsed:] Original. 10-A. United States of America, District of Nebraska, Lincoln Division. The Lincoln Gas and Electric Light Company, Complainant, v. The City of Lincoln, et al., Defendants. Citation. Filed Jun- 3, 1909. Geo. H. Thummel, Clerk, By J. H. McClay, Deputy. A. D.

90 On the first day of June, 1909, application for extension of time was filed in said case, which said application is in words and figures following, to wit:

In the United States Circuit Court in and for the District of Nebraska.

THE LINCOLN GAS & ELECTRIC LIGHT COMPANY, Plaintiff,

vs.

THE CITY OF LINCOLN et al., Defendant.

Application for Extension of Time.

The Lincoln Gas & Electric Light Company hereby makes application for an extension of time for a period of thirty days from June 4, 1909, within which to perfect its appeal in the above entitled case; and your petitioner and applicant represents and shows unto the court that pursuant to the order made herein on May 5, 1909, the petitioner herein was by order of this court, given twenty days within which to prepare and perfect its appeal to the Supreme Court of United States; and your petitioner proceeded at once in the matter of preparing the record for said appeal and has secured and placed on file its appeal bond in the sum of One Hundred and Fifty Thousand (\$150,000.00) Dollars, which has been approved and has ordered from the Clerk of the Court a complete transcript of the proceedings, including the pleadings and evidence in the case, and, as your petitioner is advised and believes it has not been possible to complete the record within the allowed time of the court. Plaintiff says that the testimony covers about a thousand pages and it will require from twenty to thirty days additional time within
 91 which to complete the record, proceeding with all possible speed and diligence.

Wherefore, your petitioner asks and prays for an order extending the time within which to perfect the appeal for the further and additional period of thirty days from June 4, 1909.

(Signed)

LINCOLN GAS & ELECTRIC CO.,

By H. F. ROSE &

E. C. STRODE, *Its Attorneys.*

STATE OF NEBRASKA,

Lancaster County, ss:

E. C. Strode, being first duly sworn on oath says, that he is one of the attorneys for the Lincoln Gas & Electric Light Company, complainant, in the above entitled cause; that he has read over the foregoing application and petition, and knows the contents thereof, and that the facts therein stated are true.

(Signed)

E. C. STRODE.

Subscribed in my presence and sworn to before me this 31st day of May, 1909.

(Signed)

F. M. TYRRELL,

[NOTARIAL SEAL.]

Notary Public.

Com. Ex. 2/12, 1913.

Indorsed: No. 10. Docket A U. S. Cir. Ct. in and for the Dist. of Neb. Lincoln Gas & Electric Light Co. vs. City of Lincoln, et al. Filed Jun- 1, 1909. Geo. H. Thummel, Clerk, by J. H. McClay, Deputy. A. D. Application for extension of time. E. C. Strode, Att'y for Complainant.

92 Thereupon, afterwards, to wit, at the May, 1909, term of said court, and on the second day of June, 1909, an order extending the time in which to perfect the appeal in this cause was signed, and on the third day of June, 1909, said order was duly filed, and entered of record in the Court Journal. Said original order is subjoined.

93 In the Circuit Court of United States in and for the District of Nebraska.

THE LINCOLN GAS & ELECTRIC LIGHT COMPANY, Plaintiff,

vs.

THE CITY OF LINCOLN et al., Defendant-.

Order.

The Lincoln Gas & Electric Light Company having filed and presented its application for an extension of time within which to prepare the record and perfect its appeal to the Supreme Court of United States, in the above entitled case, and it being made to appear, that owing to the large amount of testimony taken upon the hearing of said case and the large volume of the record necessary to be prepared for said appeal, the said record could not be prepared within thirty days from the date of the order allowing the appeal herein, and further it being made to appear that it would require an additional time of 30 days from June 5, 1909, within which to complete the record and transcript in said case.

It is therefore ordered that the time be extended for the period of 30 days from June 4, 1909, within which to prepare and complete the transcript and perfect the appeal in said case, and said time is by the order of this court allowed and granted the Lincoln Gas & Electric Light Company pursuant to this order.

Dated June 2d, 1909.

WM. H. MUNGER, *Judge.*

[Endorsed:] 10-A. U. S. Cir. Ct. in and for the Dist. of Neb. Lincoln Gas & Electric Light Co. vs. City of Lincoln, et al. Order Filed Jun- 3, 1909. Geo. H. Thummel, Clerk, by J. H. McClay, Deputy. A. D. E. C. Strode, Att'y for Complainant.

94 Thereupon, afterwards, to wit, on the 19th day of June, 1909, motion was filed in said case, which said motion is in words and figures following, to wit:

In the Circuit Court of United States in and for the District of
Nebraska.

LINCOLN GAS & ELECTRIC LIGHT COMPANY, Complainant,
vs.
CITY OF LINCOLN et al., Defendant.

Motion.

Comes now the complainant and moves the court for an order substituting the name of John M. Stewart for the name of Edmund C. Strode, as one of the defendants in the above entitled proceedings. The complainant also presents herewith a certified copy of the council proceedings of the City of Lincoln with respect thereto.

The complainant asks that the order be made substituting the name of John M. Stewart, City Attorney as defendant, and that the Clerk of the Court be authorized and directed to substitute said name of John M. Stewart as defendant in the transcript and record in the proceedings of this case.

(Signed) LINCOLN GAS & ELECTRIC LIGHT CO.,
By E. C. STRODE, *Its Att'y.*

Indorsed: 10-A. Circuit Court United States, in and for District of Neb. Lincoln Gas & Electric Light Company vs. City of Lincoln, et al. Motion. Filed Jun- 19, 1909. Geo. H. Thummel, Clerk, by J. H. McClay, Deputy. A. D.

95 Thereupon, afterwards, to wit, on the 19th day of June, 1909, certified copy of proceedings of Lincoln City Council was filed in said case, which said copy is in words and figures following, to wit:

Request to Change Counsel in Gas Rate Suit.

H. F. Rose, Clerk, read the following communication:

"To the Hon. Mayor & Council of the City of Lincoln:

Owing to my removal from Lincoln, and my special employment as attorney for the Burlington Railroad, I find it burdensome to me personally to continue full responsibility for the prosecution of the Gas Rate Suit. Former City Attorney E. C. Strode, Esq. who succeeds me as attorney for the Gas Co. was in office when this suit was commenced, but has taken no active part in the conduct of the case, the answer having been drawn and proofs taken by the present City Attorney. If deemed consistent I respectfully request that the City consent that Mr. Strode's appearance in this suit for the City be withdrawn, and that he may appear as counsel for the Gas Company in the further proceedings to be had therein, provided, that such course is agreeable to the present City Attorney.

Respectfully,

HALLECK F. ROSE."

Hoppe Moved that the communication be referred to the Legal Dep't.

Seconded by Hauschildt.

City Attorney Stewart, Being called for, stated that it did not make any difference to him whatever, and that it would not prejudice the interests of the City whoever appeared against him in the case.

George Moved as a substitute that the request be granted.

Seconded by Castle and carried by the following votes: Ayes:

Bauer, Bishop, Castle, George, Hauschildt, Leonhardt, Quiggle, Sawyer, Woodward. Naves: Hoppe, Hutton.

STATE OF NEBRASKA,

Lancaster County, ss:

I do hereby certify that the foregoing is a true and correct copy of the minutes, in part, of the Council proceedings, under date of May 4, 1908, as shown by the records and filed in the office of the City Clerk.

Witness my hand and official seal this 19th day of June, 1909.

(Signed)

R. C. OZMAN,

[OFFICIAL SEAL.]

City Clerk.

Indorsed: No. 10. Doc. A. Certified copy of proceedings of City Council, Lincoln, Nebr. Filed Jun- 19, 1909. Geo. H. Thummel, Clerk, by J. H. McClay, Deputy. A. D.

Thereupon, afterwards, to wit, on the 23d day of June, 1909, security for costs was filed in said case, which said security for costs is in words and figures following, to wit:

In the U. S. Circuit Court for the District of Nebraska, Lincoln Division.

No. 10, Docket A.

LINCOLN GAS & ELECTRIC LIGHT COMPANY

vs.

THE CITY OF LINCOLN et al.

Security for costs is hereby entered in the above cause, and the undersigned agrees to pay all costs which may accrue to the opposite party in this action, or to any of the officers of this court. And in default of payment by the plaintiff of any costs ordered or adjudged to be paid by plaintiff, it is hereby agreed and stipulated that execution may issue against the undersigned for any and all costs taxed.

97 Dated this twenty third day of June 1909.

(Signed) LINCOLN GAS & ELECTRIC LIGHT CO.,

By B. C. ADAMS, *Gen'l Mgr.*

(Signed) WM. BRADFORD.

Indorsed: No. 10. Doc. A. United States Circuit Court, District of Nebraska, Lincoln Division. The Lincoln Gas & Electric Light Company vs. The City of Lincoln, et al. Security for costs. Filed Jun- 23, 1909. Geo. H. Thummel, Clerk, by J. H. McClay, Deputy. A. D.

98 UNITED STATES OF AMERICA,
 District of Nebraska, ss:

I, George H. Thummel, clerk of the circuit court of the United States, for the district of Nebraska, do hereby certify that pursuant to the order of Court and in compliance with the præcipe, a copy of which is found on page three hereof, the foregoing record, consisting of volumes one, two, and three, has been made, volume one containing a true copy of all pleadings, files, and records, volume two containing a true copy of the testimony adduced by the complainant, and volume three containing a true copy of the testimony adduced by the defendants therein; and that the same is a true and faithful transcript of the pleadings and proceedings of record and on file in said court, as mentioned in said præcipe, and as indicated in the foregoing index, in the case of the Lincoln Gas and Electric Light Company against the City of Lincoln, Francis W. Brown, Mayor, and Edmund C. Strode, City Attorney of said City of Lincoln, No. 10, Docket A, and that a copy of the citation and a true copy of an order of the Court extending time in which to perfect appeal, duly certified, have been lodged and remain in my said office as such clerk.

Witness my hand and the seal of said court at Lincoln in said district, this 25th day of June, A. D. 1909.

[Seal United States Circuit Court, District of Nebraska,
Lincoln Division.]

GEO. H. THUMMEL, *Clerk.*
J. H. McCLAY, *Deputy.*

Volume Two.

Complainant's Testimony.

United States Circuit Court, District of Nebraska, Lincoln
Division.

No. 10, Docket A.

THE LINCOLN GAS AND ELECTRIC LIGHT COMPANY, Complainant,
v.
THE CITY OF LINCOLN, FRANCIS W. BROWN, Mayor, and EDMUND
C. STRODE, City Attorney of said City of Lincoln, Defendants.

I, George H. Thummel, clerk of said court, hereby certify that the following record, consisting of 291 pages, contains all of the testimony in the above entitled case, adduced by the complainant therein; also all of the exhibits in connection therewith, as shown by the files and records of this office.

In testimony whereof, I have hereunto set my hand and the seal of said court, at Lincoln, in said district, this 25th day of June, 1909.

[Seal United States Circuit Court, District of Nebraska.]

GEO. H. THUMMEL, *Clerk.*

By J. H. McCLAY, *Deputy*.

Filed Oct. 8, 1907. Geo. H. Thummel, Clerk. By F. A. Harrison, Deputy.

In the Circuit Court of the United States for the District of
Nebraska, Lincoln Division.

10. A.

THE LINCOLN GAS & ELECTRIC LIGHT COMPANY, Complainant,
vs.
CITY OF LINCOLN, NEBRASKA, FRANCES W. BROWN, Mayor, et al.,
Defendants.

Testimony Taken on Behalf of Complainant.

I, Myron E. Wheeler, Examiner in Chancery, hereby certify that the within deposition and testimony were taken by me, by me inclosed and sealed up in the within package, and delivered with my own hand to the said Circuit Court of the United States for the District of Nebraska, Lincoln Division, for which they were taken.

(Signed)

MYRON E. WHEELER,
Examiner in Chancery.

To the Clerk of the United States Circuit Court for the District
of Nebraska, Lincoln Division, Lincoln, Nebraska.

Filed Oct. 8, 1907. Geo. H. Thummel, Clerk. By F. A. Harrison, Deputy.

Rec'd this Deposition at the hands of Myron Wheeler, Reporter this 8th day of October, 1907, and opened in open Court in pursuance of the order of Court.

(Signed)

GEO. H. THUMMEL, *Clerk.*

e In the Circuit Court of the United States for the District of Nebraska, Lincoln Division.

THE LINCOLN GAS & ELECTRIC LIGHT COMPANY, Complainant,
vs.

THE CITY OF LINCOLN, FRANCIS W. BROWN, Mayor, et al.,
Defendants.

Notice of Taking Testimony Orally.

Notice is hereby given that we shall proceed to take proof for final hearing on the part of the complainant, in pursuance of the rule and practice of this court, orally, before M. E. Wheeler, an examiner of this court or some other proper person, at the offices of the Lincoln Gas & Electric Light Company in the City of Lincoln, Lancaster County, Nebraska, on the 23rd day of September, 1907, at the hour of 10 o'clock A. M.

The names of the witnesses whom it is intended to examine are stated below. You are invited to attend and cross-examine our witnesses produced. The examination will be adjourned from day to day and to such time and place as may be required without further notice.

Dated Sept. 21, 1907.

(Signed)

HALLECK F. ROSE,
Complainant's Solicitor.

To John M. Stewart, Esq., Defendant's Solicitor.

The names of the witnesses to be examined are: B. C. Adams, William Bradford, Michael E. Malone, Harry Warner, Homer Honeywell, Frank W. Frueauff and William Grant and W. H. Gardiner.

f I acknowledge service of a copy of the above notice this 21st day of September, 1907, and consent that the testimony of the witnesses above named may be taken as stated in the above and foregoing notice.

(Signed)

JOHN M. STEWART,
Solicitor for Defendants.

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1 In the Circuit Court of the United States for the District of
Nebraska, Lincoln Division.

THE LINCOLN GAS & ELECTRIC LIGHT COMPANY, Complainant,

vs.

CITY OF LINCOLN, NEBRASKA, FRANCES W. BROWN, Mayor, et al.,
Defendants.

Examiner's Report.

To the Honorable, the Judges of the United States Circuit Court for
the District of Nebraska, Lincoln Division:

I, Myron E. Wheeler, an Examiner in Chancery for said Court,
duly appointed, do hereby certify and report that in pursuance to
the annexed notice and stipulation, duly signed by counsel for the
respective parties, I proceeded to take the testimony of the witnesses
named in said notice and stipulation on behalf of the complainant
at the office of the Lincoln Gas & Electric Light Company, in the
city of Lincoln, County of Lancaster, and State of Nebraska, on the
23rd day of September, 1907, at the hour of 10 o'clock A. M., and
adjourning from day to day as shown in the accompanying report of

said testimony, and that the testimony so taken embracing 291 pages, and Exhibits marked "A-1," B, C, D, E, F, G, J, K, L, M & "1" is herewith transmitted.

All of which is respectfully transmitted.

MYRON E. WHEELER,
Examiner in Chancery.

- 2 In the Circuit Court of the United States for the District of
Nebraska, Lincoln Division.

THE LINCOLN GAS & ELECTRIC LIGHT COMPANY, Complainant,
vs.
CITY OF LINCOLN, NEBRASKA, FRANCES W. BROWN, Mayor, et al.,
Defendants.

Testimony Taken on Behalf of Complainant.

Appearances:

Halleck F. Rose, Esq., for Complainant.
John M. Stewart, Esq., for Defendants.

Transcript of Evidence.

Depositions of witnesses produced, sworn and examined on the part
of Complainant.

The parties being present by their respective counsel at the office
of the Lincoln Gas & Electric Light Company at the City of Lincoln,
County of Lancaster, and State of Nebraska, the following proceedings
were had:

- 3 MICHAEL E. MALONE, being produced and being duly
sworn on behalf of the Complainant, testified as follows:

Examined by Mr. ROSE, on behalf of complainant:

Q. What is your age?

A. 48 past.

Q. Where do you reside?

A. At Denver Colorado, at present.

Q. What is your business?

A. I do gas engineering work. At present I am employed di-
rectly by the Denver Gas & Electric Company in the position of
Superintendent of the gas department.

Q. What experience have you had in gas engineering, and the
manufacture of gas plants?

Q. Well, I started in 20 years ago or more in the gas business,
as a clerk, and worked up to be superintendent for the Denver Gas
Company. I worked at Columbus, Ohio, and Madison, Wisconsin,
and Denver, Colorado, and I have had occasion at different stages
of that period of time, 20 years I say, to put in all kinds of gas

apparatus in those 3 towns, and on my own hook I have built some two or three different gas plants complete in addition to making a number of reports on plants and putting additions to them in the distributing system as well as the manufacturing end.

Q. And in your present work are you familiar with the price of materials that go into the construction of plants for the manufacture and distribution of gas?

A. Yes, sir; I have been for the last 10 consecutive years.

Q. And the price of labor?

A. Yes sir.

Q. And the equipments that are required.

4 A. Yes sir.

Q. You are familiar with the requirements of such properties as the Lincoln Gas & Electric Light Company's plant in the city of Lincoln?

A. Yes sir.

Q. Have you examined physically the properties of the Lincoln Gas & Electric Light Company used in its gas department in the city of Lincoln?

A. Yes sir I have.

Q. When and how full an examination did you make?

A. Two months ago I made a visit here and spent 5 days, 3 of which was put in entirely at the plant,—what I mean by "entirely" is not the *entire* day but from 2 to 5 and 7 hours a day, and making some 3 or 4 different visits, and measured up the apparatus and made a note of everything; took it to the office here and went over it, and had some correspondence with the manufacturers to enable me to get the present price of apparatus of that kind.

Q. And did you have access to the plats of the mains, and the books of the company?

A. I did.

Q. Did you examine them?

A. I did. Went over it very carefully and measured up on the maps all of the different streets where the streets were paved and unpaved to find out the number of miles of mains they had, the different qualities and the amounts under paved streets and under dirt streets.

Q. Did you make any examination of the streets also?

A. Yes sir, I took a buggy and drove over most of the mains.

Q. Did you check up so as to make a detailed statement of their properties?

A. Yes sir.

Q. And their values?

A. Yes sir.

5 Q. You describe the process of manufacturing gas and in the scope of your answer you may include the material, apparatus, process, both for manufacturing and delivering?

A. Eliminating the prices and so forth, simply the process?

Q. Yes sir?

A. Well, I might say that gas was discovered back about 1792, since then it has been improved greatly in the manufacturing

process. At present coal gas, the manufacture of coal gas is really a destructive distillation of coal in a retort usually made of fire clay. The retort, or retorts rather, are erected in what is called a gas furnace or bench, or a number of benches, depending on the size of the plant; they run all the way from 3 retorts in a bench to 9 and sometimes 12. There are what are called free or plain fire benches and also what is called recuperative or regenerative furnaces. In these furnaces it is customary in a modern and up to date plant—there are a great many things that are not modern and up to date—but in a modern and up to date one there is a furnace in it and they draw the hot coke directly into the furnace. Attached to three of these benches also are what are called bench fuel economizers, whereby some of the gases are drawn back under the grate bars and the inert gas is converted into combustible gas which saves a great deal of expense in fuel. From the retort or retorts the gas passes, this retort being hermetically sealed and the air excluded. The gas passes up what is called a stand pipe attached to the front of the retort, or mouth piece. From there it is delivered into a hydraulic main, it might be called a water valve, to prevent the gases from coming back into the retort and igniting or exploding. From the hydraulic main it usually passes into a primary condenser to reduce the temperature of the gas and drive off the globules of tar and so forth. Before entering this condenser the temperature is as high as 175 degrees we try to draw it down to 130 degrees at the exhauster, which is the next apparatus to the primary condenser, when there is one. The purpose of the gas exhauster is to draw the gas from the retorts through the hydraulic main at what is called atmospheric pressure, or vacuum line from which point it is forced through a series of apparatuses for scrubbing and condensing. The first apparatus being what is usually called the tar extractor, the tar extractor taking up a certain percentage of the tar which varies in different plants and different kinds of gas, 50% being taken off by the extractor of what is remaining after what is taken off at the main. From the tar extractor the gas goes through a series of air or water tube condensers, some plants having 1 and 2, and others having as high as 10 or 12, from the condenser it is driven through one or more tower scrubbers, some times as high as 120 feet, usually, however, from 30 to 60 feet. These tower scrubbers are filled with coke or other suitable material, wooden blocks or trays, the gas passing in at the bottom and passing through this material in a counter current to the liquid with which it is washed, this liquid being ammoniacal water in most cases, some cases they use clear plain water. From the tower scrubbers the gas then passes to what is called the rotary scrubber, that being the condition in Lincoln, the last vessel taking out the remaining particles of tar and ammonia gases. From the rotary scrubber the gas passes to the purifying boxes, usually 4 in number,—however, these vary according to the size of the plant. The gas then passes through purifying material commonly used in the United States at the present time, called oxide of iron, or iron sponge made from iron

7 borings and from corncobs, shavings, ground cork, or any like material, that is used as a carrier of the oxide of iron preventing it caking and making a back pressure. From the purifying boxes the gas passes to the station meter, which is a large meter of sufficient capacity to take all the amount of gas made every hour, which varies at different periods of the twenty-four hours. This meter measures all of the gas at whatever the temperature of the atmosphere or room may be at the time the gas passes through, the correction being made to reduce this to standard conditions which are sixty degrees temperature and thirty degrees barometric pressure. From the meter the gas passes to the holder, commonly called a storage holder. Due to the fact that in most large cities at the present time holders are built not having sufficient weight to give the desired pressure for the ordinary distribution system it becomes necessary to pump the gas from the holder and force it into the street mains under an initial pressure of from 3 to 5 or 6 inches.

Q. Inches of water you mean?

A. Yes sir. What we call "column of water one inch in height," that is normal, reduced to pounds $3\frac{4}{10}$ or $3\frac{4}{10}$ inches would represent only two ounces of sea level. The gas then passes through the main transmission, and then into the distributing mains and service pipes into the houses where it is measured by the consumers' meters. That would, I think, cover the coal gas method of manufacturing and distributing coal gas briefly.

Q. Describe the manufacture of water gas?

A. Water gas is what is called the decomposition of steam by passing it through a fuel bed varying in depth of from 5 to 8 or 9 feet. The steam being first pre-heated to a high temperature, generally delivered into the machine at about 80 pounds pressure. That is what is now called water gas. Up to this point it is a blue gas having no luminosity whatever. After passing through the
8 fuel bed it goes from the bottom up, although there are machines that have reverse runs; it passes into what is called the carburetter, at which point the oil for the purpose of enrichment is admitted.

Q. What kind of oil?

A. Most any gas making oil. Usually it is called a gas distillate. The price of oil is very high at present, and it — necessary to use a grade of oil that is not prohibitive; gas distillate being a grade of oil from which one or two of the lighter distillates have been taken from it at the refinery.

Q. The oil used is petroleum, a product of petroleum?

A. Hardly; some of the petroleum is taken from it; it is crude oil with one or two distillates taken off, and one of the distillates is petroleum for which they get a very much higher price for that grade of oil, the balance making just as good a gas, but not as much of it as if the petroleum was left in. The vessel to which the oil is admitted is called the carburetter, that is where the carbon is admitted to the gas and brought from a blue gas up to what is called the carburetted water gas. The gas then passes down through this carburetter, which is filled with fire brick, what is called "checker

work," this fire brick is arranged in a checker work fashion, laid on edge and staggered so the gas is compelled to permeate through the entire mass of fire brick, through the openings where it is partly fixed into a gas. It then crosses over to the third vessel called the super-heater, which is also filled with checkered fire brick where it gets its final fixing, where it is finally fixed into a permanent, gassy little of it being reduced back into a liquid form. From this vessel it passes through the seal pot, which in water gas is identical to the hydraulic main in coal gas, from which point it passes to the various condensers and scrubbers and washers and coolers similar to the method in coal gas, and from there to the relief holder. The relief holder of a water gas plant is for the purpose of storing the gas as fast as it is made, it usually being made much faster than the 9 apparatus can handle it. It is then pumped from the relief holder and forced through the apparatus, purifiers, etc. at the rate every hour which the apparatus is able to handle it. It is then measured similarly to the coal gas through the station meter, and stored in the storage holder from where it is delivered mixed with the coal gas. I might add here that the mixture in most plants is made at the entrance to the purifier, the two gases are mixed in the proper proportions, passing together through the boxes, and measured in most cases jointly; in a great many cases they keep the entire system separate. That would, I believe, cover it.

—, What kind of coal is used in the manufacture of coal gas?

A. Well, I don't know of but three kinds of coals in the United States that are really suitable for gas, that is, perhaps there are four; the Virginia coal, the Youghioghenny coal of Pennsylvania, the Fairmont,—and some other good coals in West Virginia; there are some good coals in and around Trinidad, Colorado, and some out in Washington; most all the other coals are simply a steam or domestic coal.

Q. Where does the coal come from that is used in Lincoln?

A. I have never seen the bills, but I was told by the manager they came from Pennsylvania, and I believe that to be the fact.

Q. Which would be probably the most economical in point of the distance required to be shipped, and the freight rates here?

A. It seems after a test I have understood that was made here, it seems after a test,—I know we have made it in Denver, and the freight rate there is higher, it is cheaper to buy the Youghioghenny coal at present, although the freight on coal is up to \$4.50.

Q. That is required to be shipped from Pennsylvania?

A. Yes sir.

Q. What if any objection is there to the cheap coal, or coals of inferior quality?

A. Well, in the first place take for instance the Hocking, Ohio, coal, one of the best steam coals in the country, it has about 10 three and a half feet of gas, the Youghioghenny has about 5 feet usually; now that is $3\frac{1}{2}$ to 5, you can readily see to put up a plant to handle Ohio coal you have to have whatever the per cent is of $3\frac{1}{2}$ to 5, that is you would have to have that much larger plant to take care of your output.

Q. You give the standard 5 feet and $3\frac{1}{2}$ what is that?

A. Per pound of coal.

Q. What, if any, objection is there to the use of coal having a large percentage of sulphur?

A. I have seen coal shipped during the strike, the Lehigh Valley strike 7 or 8 years ago, that had so much sulphur they had to almost shut down their plants; people couldn't use it in their houses. Coal with over one per cent is almost prohibitive. The cost of apparatus to take out one or more per cent of sulphur per pound of coal would be such we couldn't use it.

Q. Coal having a considerable percentage of sulphur might have as high a percentage of gas in it as some of the best coal?

A. Yes sir.

Q. And still you couldn't use it?

A. No sir; notably the Kansas Coal right close to here.

Q. Is it practical to use Kansas coal here?

A. It would be if you had about ten times your ordinary scrubbing, condensing and purifying capacity.

Q. Would it be economical or efficient?

A. No sir, it would not. I guess the best evidence of that is they had to discontinue using it, they have used it here.

Q. Does it add to the pecuniary or economical efficiency of a plant to employ both the systems of manufacturing coal and water gas?

A. Very much so, yes sir.

Q. Explain why?

A. Well, sometimes you are at the mercy of the oil market, which *which* is controlled, as we all know, by the Standard principally and if you have nothing but a water gas plant they would raise the price at will, which I have known them to do with other companies controlled by them so it is necessary to have both processes in order to operate the process which is the cheapest, either coal or water gas. The same thing would occur if you had an exclusive coal gas plant, they might raise the price of coal on you and throw you out of business. It makes your system more flexible, you can operate part of either. It is also necessary at times to have a water gas plant in order to bring up your candle power requirements. In a great many cities the candle power requirements is such that by the use of coal alone you wouldn't be able to bring it up to the necessary requirement.

Q. Does it add anything to the efficiency or economy in being able to manufacture your own coke that you described used in the manufacture of water gas?

A. That is another good point in favor of having a combination plant, coal and water, you can manufacture your own coke much cheaper than you can buy it in ordinary quantities.

Q. And at the same time you would be taking and utilizing the gas in the coke?

A. Yes sir, but there is very little gas in coke.

Q. I mean in the process of making the coke, you would also extract the gas and put it in the holder?

A. Yes sir. We would have the coke as a residuum. You can use it in large furnaces for making coal and water gas both.

Q. Is the coke used in the system here in Lincoln?

A. Yes sir.

Q. Do you regard the plant here as an efficient plant for results so far as you have examined into the reports and taking into consideration the size of the town and the size of the plant?

12 A. No sir, I don't know as I would, it is not modern and up to date especially the water gas and coal benches, but the balance of the system is in good shape, and the purifiers; they have just rebuilt the furnaces in the coal gas plant and they are modern.

Q. What I mean is in the result attained?

A. Oh, the quality of gas is all right but the cost of manufacture is more. They have one machine in there called a Springer set, it has all three compartments in one shell instead of having 3 cylindrical vessels in line to pass it through and the 3 compartments are in one. Now that is an old fashioned machine, it cost a good deal of money when it was put in but it is not modern and you don't get the efficiency you would from a modern set.

Q. Is that a relief set here?

A. Yes sir.

Q. And not used regularly?

A. No sir, only in emergencies, where they are called upon to make up a deficiency which they would not be able to get in a coal plant.

Q. That was regarded as an efficient apparatus at the time it was bought and put in here?

A. Yes sir, one of the first that was put on the market.

Q. You say you have gone over the inventory of the properties here?

A. Yes sir.

Q. And have checked over the cost of replacement?

A. Yes sir, I have.

Q. Are you acquainted with the value of the property here?

A. I am not so familiar with the cost of the real estate, I had to take that from some outside parties, I believe, they put an estimate of value on it.

Q. That is a small item anyway?

A. Yes sir, that is very small.

Q. Did you make a detailed estimate of the physical properties here?

13 A. I did. The replacing value?

Q. Yes sir?

A. Yes sir.

Q. From the inspection that you made?

A. Yes sir.

Q. What do you think is the present replacing value of the physical properties of the Lincoln Gas & Electric Light Company?

A. The total cost?

Q. Yes sir?

A. Does that include the cost of getting money organization and so forth?

Q. You may leave that out, just take the physical properties?

A. \$691,000. There are some items that I didn't add in there because I didn't know just where they belonged.

Q. You may detail the properties and the different classifications of the properties and show how you arrived at this total?

A. I first described the method of manufacturing the coal gas, now the necessary apparatus, just apparatus, not the building, ground or anything, to do it in Lincoln, to replace their present apparatus would be \$80,605. Now to replace the present water gas apparatus would take \$31,503. The cost of all the buildings at the gas plant, not including any of the electric plant \$37,286; the real estate \$7,200.

Q. That includes the whole block of ground?

A. That includes two-thirds of all of the ground. Two thirds is used by the gas plant and one-third by the electric. They have to have such large storage for coke and oil they probably use over two-thirds of the property for the gas plant.

Q. Before you go on. In the estimate that you have given of \$691,000, do you include any of the properties of the complainant that are employed in the manufacture and distribution of electricity?

A. With one possible exception. That is all of the steam plant is installed in the electric department and we had to estimate the steam power capacity necessary to operate the gas plant and the building for it, now with that one exception—of course it is now used for gas but it is erected on the electric grounds.

Q. Do you apportion those items that are used in common so your estimate includes only the gas plant alone?

A. Yes sir, just the gas entirely.

Q. Now you may go on with your answer to the previous question?

A. There are 62 miles of street mains, including the cost of re-paving over the mains in the streets, on which the gas pipes are under the paved streets is \$220,605. The gas service pipes including the re-paving and cost of permits amounts to \$107,106, gas metres in use \$36,282, metre connections \$13,184, piping for gas ranges \$16,500. Now comes this contingent and engineering expense, do you want that read off?

Q. You might omit that for the present. What do you give for working capital?

A. Well, the engineering cost we didn't think it was a correct charge to make against working capital so we put that below.

Q. You may estimate the engineering expense?

A. The engineering expense on \$550,272. at $2\frac{1}{2}\%$ which is a very low figure, is \$13,756. Now comes the contingent expense. That is an expense that will accrue to any job of \$5,000, and upwards and all large corporations or factories always figure a contingent expense I am told on a job of this size. I have never had any experience in putting up a job of this size. I have placed that at $12\frac{1}{2}\%$ it varies all the way from 5% to 20% on a job of this size it would run at least $12\frac{1}{2}\%$. That contingent expense does not include the expense of the engineering, neither does it take in the real estate. Now take it on the figures \$543,072.76 that amounts to \$67,884.09; now comes the item of working capital amounting

to \$59,146. I haven't given the cents in these cases. That brings the total I gave you awhile ago up to \$691,000.

Q. Now in the estimates you have given of the apparatus, building, cost of street mains, services, metres and connections, have you estimated just merely the naked cost of the work and material?

A. No, I estimated the cost of the material in place in every instance.

Q. That would be the material and labor?

A. The actual cost of it, yes sir.

Q. To that this other expense would necessarily be incurred in constructing a plant?

A. Yes sir.

Q. You would have to have the engineer's plans and designs and superintendence?

A. Yes sir.

Q. Now you may show how the cost of a coal gas apparatus is made up in detail and give the items that enter into that expense?

A. Well, page 1 of this report is headed Coal Gas Apparatus and it covers all of the apparatus used in that department, it consists of three recuperative benches, of six retorts each.

Q. Are you giving the actual apparatus that you found on inspection at Lincoln?

A. Yes sir.

Q. And that only?

A. That is all. That is it would cost a certain amount of money which I will read to put in these 3 benches.

Q. You are giving the present replacement cost?

A. Yes sir, if you were to replace them.

Q. And this apparatus is in actual use by the company now?

A. Yes sir. But the replacement cost would be entirely new stuff.

Q. This is the apparatus that is in actual use now?

A. Yes sir to replace the apparatus that is now in use would cost the amount of money I am about to give you.

Q. Go on and give the details of the cost of the whole gas apparatus?

16 A. With an economizer attachment \$8,950.; 3½ depth benches of sixes minus the economizer \$8,480. one Root's exhauster and engine \$1475. one number 3, P & A Tar extractor with by-pass connection \$755. one Tower 66 inches diameter by 30 feet high with by-pass connections \$925. one water tube condenser 54 inches in diameter and 25 feet high with by-pass connections \$1060. one standard rotary scrubber and by-pass connections \$1050. one coal gas metre 5 feet by 5 feet with by-pass connections \$2650. one set of horizontal water-cooled condensers \$550. one ammonia circulating pump with motor \$225. one Root's economizer blower and engine, piping gauges, and so forth \$875. 132 feet of ten inch Foul main \$260. 4 purifying boxes including center seal, carriage, connections etc., \$18,960. one 10 foot by 10 foot station metre and connections \$4750. 177 feet 16 inch Foul main \$840. one 205000

cubic foot 2 lift gas holder \$18,000. one brick tank complete for same \$6300. one 20 inch Connolly street main governor and connections \$1100. one gas booster outfit and motor \$520. 6 storage tanks for tar \$2100. one gas calorimeter one bar photometer and laboratory apparatus and supplies \$775. that makes a total of \$80,605.

Q. What were the items that enter into the aggregate cost of the water gas apparatus?

A. Well, they consist of one 6 foot 6 inch Western Gas Construction Company make of water gas machines and all the necessary connections \$8,437.; one operating floor for above \$600. one 6 foot Springer water gas set complete \$6720. one number 10 Buffalo forge blower \$300. 35 horse power motor \$535.; one 15 horse power blower and motor, (reserve blower and motor,) \$350.; one 50,000 cubic feet relief gas holder \$6500. one brick tank for same \$2875. one Mackenzie exhaustor and engine \$725.; 325 feet of 12 men Roul main \$720.; 2 oil storage tanks \$700.; 500 feet of piping 17 from oil tanks to gas machines \$137.; oil pump, governor, heater, filter and meter attachments for above apparatus \$203.50; one oil spray system \$165.; one tar separator including circulating pumps and connections \$310.50; one 150 horse power boiler erected complete including stack \$2225.; making a total of \$31,503.

Q. Is that in your opinion the reasonable replacement value of the water gas apparatus at the complainant's place in Lincoln?

A. It is.

Q. Will you give the items that enter into the real estate and buildings?

A. I can abbreviate a little here these measurements as you got them.

Q. All right?

A. Cost of real estate and buildings consisting of 8 lots,—I do not know the dimensions but they are 8 full city lots, it might be well to make a note of that.

Q. The 8 lots would be $\frac{3}{4}$ of a block. You allow $\frac{1}{4}$ of the real estate for the electric light plant?

A. Yes sir. The real estate is placed at a value of \$900. a lot or \$7200. for the 8 lots. Then follows the water gas generating house \$5200.; coal gas retort house \$6750.; a purifying house which includes the engine room, condensing and meter rooms and laboratory \$14,550.; all under the same roof, boiler room \$1250.; coal sheds \$2475.; oil house \$1335.; street main governor house \$488.; $\frac{3}{4}$ of the cost of the barn \$333.; $\frac{1}{2}$ of the cost of the blacksmith shop \$165. We felt it was necessary to put in half of the cost of the blacksmith shop because about half of the repairs are on the gas whereas where the horses are stored it is $\frac{3}{4}$.

Q. Now the sewage system there is one box sewer and one tile sewer costing \$631.; it would cost that to replace it, in fact I don't believe it could be done in that wet ground for that money. The

18 water system which includes all of the piping and meter and labor amounts to \$500, the steam heating system \$1600, the electric and gas lighting system \$269. Now the neces-

sary steam pipe to conduct steam to the coal and water gas plant from the boiler \$650.; that is separate from the steam heating system. Track scales \$750.;—that is for weighing carloads of coal etc. Wagon scales \$250.; one pair of platform scales \$90. total \$44,486.

Q. Now what do you estimate would be the reasonable replacement cost of that real estate and buildings?

A. Well, as I said the total here shows \$44,486. and I do not think I was ever any more conservative in a set of figures than I have been in this.

Q. Have you figured anything for contingent expenses and engineering cost?

A. Yes sir, $2\frac{1}{2}\%$ of this amount for engineering and $12\frac{1}{2}\%$ on the same amount for contingent.

Q. Now in the estimate you give of the replacement cost of the coal and water gas apparatus do you include in the figures that you give, for example for the coal gas apparatus \$80,000.; any sum for engineering charges and contingent?

A. Not in the \$80,000.; that is added to it on the recapitulation. Q. And in the figures you give for the actual replacement for the water gas apparatus of \$31,000. have you anything included in there for the engineering charges and contingent expenses?

A. No sir.

Q. Now you may detail the cost of the construction of mains?

A. First giving the mains under the dirt streets?

Q. Yes sir, under the dirt streets, and the length of the mains under the dirt streets and sizes?

A. Well, we find on page 4 of this report that there are 40-35-100 miles of mains of various sizes, the first size being 2 inch; 30.79 miles of 2 inch pipe the cost of that per mile is \$1320.; or 19 25 cents a foot. the total cost of the 30.79 miles of 2 inch pipe is \$40,643.; the next size is 4 inch, that is cast iron pipe, 6.17 miles of the 4 inch \$3150. a mile amounting to \$19,436.; 6 inch pipe 1.25 miles at \$4,660. per mile makes \$5825.; the next is 8 inch pipe .23 of a mile at \$6426. per mile which amounts to \$1478.; 10 inch pipe 1.04 miles at \$8750. a mile amounts to \$9100.; 12 inch pipe .43 of a mile at \$11,480. per mile making \$4936.; 16 inch pipe .18 of a mile at \$15400. per mile making \$2772.; 20 inch pipe .26 of a mile at \$23800. per mile making \$6188.

Q. Now what do you find the total cost of the present replacement of the mains of the complainant that are now under dirt streets?

A. The total cost is \$90378. which includes permits for digging up the streets. I understand they charge you 50¢ for a permit.

Q. You have added for the cost of service in addition, your footing of the other items you gave would be there?

A. \$90378. plus 400 permits at 50¢ \$200.

Q. Now in your opinion is this estimate a reasonable and necessary cost for the actual construction work out in the street?

A. Yes sir, that would be a good fair average cost in a great many of the cities I have had experience in and I think it would be more than fair here.

Q. Do you include in that any sum for engineering and contingent liabilities?

A. Not in the amount I read here.

Q. Nothing for accidents or anything of that sort?

A. No sir.

Q. Nor for breakdowns or interruptions of any kind?

A. No sir, nothing but the actual work and cost of the material that went in.

Q. In actual practice are plants of that kind constructed without detailed engineering plans?

A. No sir, I don't know of any.

Q. In actual practice over and above the cost of material and laying the pipes down is there a certain element of hazzard that increases the cost from accidents and the like of that?

A. Oh yes sir, very frequently. I have known of explosions to take place in a system of that kind in a number of miles of mains at the same time.

Q. Is that an element that has to be taken into consideration?

A. It ought to be; it doesn't occur very often but it is liable to occur at any time.

Q. Now you may detail the items that go to make up the cost of placing the present mains of the complainant under the paved streets of Lincoln?

A. Well on page 5 we find that we have a total of,—I haven't got the totals in miles but it amounts to 25 miles in round numbers under paved streets, commencing with the 2 inch we find there are .568 of a mile,—that is under wooden block pavement,—the total cost of that is \$1585.; we find then there is .075 of a mile of 6 inch that amounts to \$460. then comes 8 inch .15 of a mile \$1184.; then there are the following sizes under the paved streets that are paved with two courses of brick. 2 inch 3.636 miles the total cost is \$12300.; 4 inch 4.800 miles \$25022.; 6 inch 2.080 miles \$13982.; 8 inch .530 miles \$4499.; 10 inch .220 mile \$2377.; 12 inch .30 mile \$406.; 16 inch .060 mile, \$1048.; now comes the asphalt streets and the mains under them. 2 inch 4.250 miles \$23082.; 4 inch 4.070 miles \$29552.; 6 inch .450 mile \$3924.; 10 inch .530 mile \$6816.; that is the total. Shall I read off the total cost on the different kinds of paved streets?

Q. What do you estimate would be the total cost then of replacing all of the kinds which this company now has under paved streets of all classes?

A. \$130027. which includes the permits at 50¢ each.

Q. Is that exclusive of any contingent or liability to accidents?

A. Yes sir.

Q. Attorneys' charges?

A. Yes sir, actual cost of labor and material.

Q. And exclusive of the cost of financing?

A. Yes sir.

Q. Does it include broken pipe?

A. No sir.

Q. Are all these other items that I mentioned just, proper and

necessary to be taken into account by an engineer in estimating the cost?

A. Yes sir it is generally, where they generally take care of all of these hazards, broken pipes and accidents.

Q. In actual practice to find what the cost would be would it be necessary to add these other contingent costs including engineering costs?

A. Yes sir.

Q. And including broken pipes?

A. Yes sir.

Q. And attorneys' fees?

A. Yes sir.

Q. Cost of financing?

A. No sir, that is a separate item; it is also added, but not in the contingent nor in the $2\frac{1}{2}\%$.

Q. But those items would have to be added in order to find the actual cost of erecting a system to complete the system?

A. Yes sir.

Q. Now what were the items that entered into the cost of gas services?

A. Well I find that there is a total of 3597 services in dirt streets, or under dirt streets.

22 Q. What do you mean by the "services," explain that?

A. Well a gas main usually runs parallel with the street, a usual distance from the curb line, they generally are allowed one side and the Water Company and sewage the other. We usually run anywhere from the 13 to the 35 foot lot line from which point we tap the main and run what is called a service line from the gas main into the cellar of the house or residence or store.

Q. So what you speak of as "services" are pipes laid to the lot line or to the tenement on the lot?

A. Yes sir.

Q. From the main?

A. Yes sir, from the gas main.

Q. And you have one main in the street and run those from there and catch the lot on either side?

A. Yes sir.

Q. Is that part of the necessary construction of your system?

A. Yes sir.

Q. And do you know whether in actual practice the gas company has wholly or very largely, run those services clear into the tenements at its own cost?

A. Yes sir, I have known them to do that.

Q. Does that work to promote, in order to promote its own business?

A. Yes sir.

Q. To promote the consumption and sale of gas?

A. Yes sir.

Q. Now what do you estimate is the cost then of this service in dirt streets?

A. The cost of this amounts to \$48,559.50, the cost of the number I gave you.

Q. Does that include the charge for the permit from the city?

A. Yes sir, that charge is in there.

23 Q. Go on and give the other items?

A. We find that there are 72 services under wooden block pavement—this is estimated, it took a long while to make this up and there are some mistakes in it, but it is more than fair. I discovered one error since. There are quite a few more under the asphalt pavement, that are more expensive than under the dirt streets. It would take some time to change the report so I let it go 72 under block pavements which amounts to \$1451.52; there are 1074 services under the two course brick pavement that amounts to \$25668.60; there are 854 under the asphalt pavement that amounts to \$31,427.20.

Q. Now what do you estimate to be the fair and reasonable replacement cost of the gas services in addition to the mains?

A. That figures up \$107,106.82.

Q. Now you had an item in the summary you gave for gas meter connections; state what gas meter connections are and what it costs the company, what each connection costs?

A. Usually in running a gas service, the pipe that I just explained here, and the number of them, we punch a hole, after digging the trench up to the house, we punch a hole through the front cellar wall whether there be a cellar or not, sometimes we have to run a pipe several feet under the parlor or sitting room before we get to the cellar wall, after we get through we generally run 10 or 15 feet of pipe, frequently the consumer insists that we set the meter on a certain wall to get away from the furnace or ice box, or coal bin or something, and the average in a great many cities runs from 10 to 12 feet of pipe and then there are two sets of meter connections they are sometimes made of lead pipe which contains a shut off cock that in case of accident you can shut the meter off, and two unions that screw on to the meter and altogether we estimate the cost of that at \$2.25 each, there are some 6304 meter connections in Lincoln.

24 Q. What, in your opinion is the reasonable and necessary cost of that work to this company?

A. Well, I have frequently had men work for me who have made meter connections and they have got to be pretty busy connecting them at \$1.25 each,—to make anything,—although you can buy a fair quality for \$1.05 each, and it costs about \$1.25 for the labor.

Q. What do you estimate the fair and reasonable aggregate cost to the company on that particular item of property?

A. It amounts to \$13184.

Q. Are these meter connections necessary to be made in order to be able to sell gas to the individual tenant?

A. Yes sir.

Q. And in actual pretice does this company make them?

A. Yes sir.

Q. Now I think in your summary you have another item, piping for gas ranges, now you may explain what that item is?

A. So far I have followed the pipes up to the meter. Now commencing at the meter and running from the meter to the average gas range I estimate the distance at 30 feet. The size pipe used for this purpose is $\frac{3}{4}$ inch sometimes it varies whether industrial purposes or kitchen range. But we took it for the ordinary domestic range 30 feet to each one that cost \$3. each.

Q. That includes labor?

A. Yes sir.

Q. How many gas ranges has this company set?

A. The first of the year their report showed 5500 ranges.

Q. What would be the aggregate of that item?

A. \$16500.

Q. Is that work necessary to be done in order to promote the sales of gas?

25 A. Yes sir; and done very carefully to avoid traps and leaks. The cost of maintenance on a thing of that kind if not done right is pretty heavy.

Q. Now you detail the gas meters that are owned and set up by the company?

A. The gas meters consist of the following number and sizes: 2951 3 light gas heaters, \$14755.

Q. That is \$5. each?

A. Yes sir.

Q. Is that their actual value?

A. After taking the discount off, yes sir. They cost \$5. each that includes freight and drayage. 3221 5 light meters at \$6.25 each, \$20131. 48, 10 light gas meters \$7.50 each \$360. 17, 20 light \$10.60 each \$180. 20, 7-30 light \$14.10 each, \$98.70; 13 45, light \$20. each \$260.; 5, 60 light \$27. each \$135.; 5, 100 light \$45. each \$225.; 2, 150 light \$69. each \$138.

Q. Now what is the aggregate value of all of the company's meters in actual use?

A. \$36282.90.

Q. That is the item you gave in your summary?

A. Yes sir.

Witness excused for the present.

It being now 12 o'clock noon, an adjournment was taken until 2 o'clock same day, September 23rd, 1907.

26 2 o'clock P. M. September 23rd, 1907, the parties met pursuant to adjournment and the following proceedings were had and done.

MICHAEL E. MALONE recalled, and direct examination resumed.

Examined by Mr. ROSE, on behalf of complainant:

Q. You mentioned an item of working capital?

A. Yes sir.

Q. You may explain the necessity of making the allowance for this item?

A. Well, I consulted with the manager of the company and superintendent and found out the amount of stock necessary to carry such as coal oil, fuel, etc., and from it I made a table of working capital which I can read now.

Q. Well, I want you to explain the necessity for providing a working capital?

A. Well, to start I take coal stock; the coal that we need here for gas making purposes as stated before comes from Pennsylvania, from Pittsburg, it is several days in transit, and in order to guard against strikes, floods and other contingencies that might arise they aim to carry an average stock of 3300 tons.

Q. Would the fluctuations of the market be one cause why you should keep a supply on hand?

Mr. STEWART: The defendant objects as leading.

A. I wouldn't think it would be. If I am permitted to answer I would answer as against that because they usually make the contract at a certain season of the year and that hold good for one or two year periods, usually one, so the price would remain for that length of time. They would be compelled to furnish you coal if it was within their power of the quality for which you contracted.

27 Q. Now how long a term of credits in this business is required to be extended to the patrons generally?

A. Patrons of the company?

Q. Yes sir.

A. It often runs as high as 45 days; they usually do not pay their gas bills—it usually runs from the 10th to the 20th of the month following the consumption of the gas.

Q. The usual term would be over a month?

A. Yes sir.

Q. Can the company operate and withhold payment for its fuel and labor and the like of that?

A. Not usually.

Q. During that term of credit the company has to pay its labor and material bills?

A. Yes sir, labor usually twice a month some states the law requires payment semi-monthly.

Q. But in actual practice what is required in order to keep workmen?

A. I have known when they have had to pay them daily,—weekly at least.

Q. Now you may go on with your explanation as to what the other items are, if any, that make it necessary to supply working capital, outside capital employed immediately in the equipment of a manufacturing and distributing plant?

A. Had I better take it as I have prepared it here?

Q. No, give the reasons why you should provide for that?

A. Well, as stated, take the coal situation that I think I have covered perhaps sufficiently. It is customary to carry and some managers insist, that the supply be not less than 90 days to meet emergencies of that kind, floods as I have stated, and shutting down,

and strikes, etc.; the same thing holds good with oil. A wreck on the railroad will sometimes put you out of business. Of course they do not aim to carry 90 days' supply of oil, 30 days' is all that is necessary in all plants I have been connected with. It also holds good with pipe stock, cast iron and wrought iron pipe, you may meet with an accident, an explosion, or a flood that will wash out some of your mains and it is necessary to carry a reasonable amount of cast and wrought iron pipe in stock.

Q. Can you always when there is a demand for an extension?

A. You should have a stock on hand for a demand for an extension it sometimes is put in on short notice and you should have a reasonable amount of pipe, a mile and a half a mile or something like that; sometimes the people couldn't afford to wait until you got a supply of pipe. It is customary to carry it.

Q. Now without going further into details you may state whether or not like consideration requires the company to keep on hand stocks of tools and supplies of a general character in addition to what you have mentioned?

A. It does. We are compelled to keep on hand a supply of tools and a stock of materials sufficient to operate for from 30 to 60 days at least.

Q. Now what are the materials that in your opinion would be reasonably required to be kept on hand by the complainant at its plant in Lincoln in order to enable it to discharge its duties to the public?

A. This would cover gas making materials as well as equipment and other materials?

Q. Yes sir.

A. Well in addition to those I have mentioned would be purifying materials, when you make it yourself or even when you buy it it takes a period of 30 to 60 days to buy it or make it.

Q. Pipe stock, all kinds of brass goods, fittings, supply of gas ranges and water heaters and other domestic and industrial fuel appliances, tools, a certain amount of steam fuel, and coke for gas making purposes both water and coal gas; it is also necessary to carry a supply of office stationery,—and in this particular report I have included a sum of money which is necessary to meet pay rolls and freights, some things that have to be met weekly or semi-monthly, or monthly.

Q. Now what, in your opinion are the actual and necessary requirements in the way of working capital for the complainants plant in the city of Lincoln, limited of course to the powers of the plant that is used for the manufacture and distribution of gas?

A. You mean in dollars and cents?

Q. Yes sir?

A. The total?

Q. Yes sir.

A. The total amount in dollars and cents after figuring very carefully in going over the thing I found that \$59,146.88 would cover the amount of working capital necessary to operate a plant the size of Lincoln's, or the Lincoln plant in other words.

Q. In your estimates heretofore given did you estimate anything

for the office rooms and work rooms and shops and office appliances of the company?

A. Yes sir, that is all included.

Q. In what?

A. In this particular report here.

Q. For working capital?

A. Yes sir, under the head of working capital.

Q. And have you gone over and taken a sort of invoice of the companys property now actually necessarily employed in that?

A. Yes sir.

Q. You may state whether or not the figures that you have included in the report represent those now actually in use?

A. I cannot say that I counted each article or measured
30 it up; I have sized up the pipe and took it from their inventories that they showed me from month to month. I wouldn't like to say I knew that they had 9,000 feet of pipe, they might only have had 8,500 feet.

Q. What would you say as to whether the sum you have given is a reasonable estimate of the actual requirements of the company for working capital outside of the items you have heretofore given?

A. That I am satisfied would be a very reasonable sum. I at least judge it would not be considered large.

Q. Now in estimating the item of pipe under the street did you make any tabulation showing the particular location of the mains actually placed and in use by this company?

A. Yes sir. I went over that very carefully, perhaps more carefully than any one other item.

Q. Have you a tabulation showing every block of pipe?

A. Under the paved streets I have, not under the dirt streets.

Q. Can you append that to your report?

A. Yes sir.

Q. You have appended that to the report you have filed?

A. Yes sir.

Q. Now is this report that you have compiled been done deliberately is it worked out deliberately?

A. It was.

Q. How much time have you spent upon this from first to last?

A. Well, I think about a day or a day and a quarter.

Q. I mean from your inspection and working of it, in computations — everything, how much time have you spent in working out this problem?

A. Well, I would say two days perhaps, because I spent some time going over it and checking it after I got back to Denver.

Q. That is in regard to this one item?

31 A. Yes sir.

Q. In going over all of the properties of the company and in doing all of the work you have done to make this estimate how much time have you devoted to it approximately?

A. Well I would say 14 days. I spent 5 days the first trip here and 3 the second and then I went over it several times at Denver and dictated it and found errors and had to dictate again. I had several conferences with interested parties the management here,

Mr. Honeywell and his superintendents. Altogether I would say 12 or 13 or 14 days.

Q. And had clerical assistance also?

A. Yes sir I had quite a number of people working for me.

Q. You may state whether or not in constructing a plant of this character there would be any period or season during which the funds would be employed before any revenue was returned upon them?

A. Yes sir. That period often occurs, monthly, every month in most of the companies.

Q. In estimating the cost of the plant, the aggregate cost of the plant I mean, do you allow anything for interest on money while it was not earning anything?

A. Oh yes sir we figured that.

Q. Have you heretofore in your estimates, in the figures you have allowed, have you allowed this?

A. No sir, not up to the present time.

Q. Now you may state what the fact is in reference of employing money before it is possible to get any return on it.

A. Well, usually in a plant the size of Lincoln's,—I have known a plant a little larger than this that has been in the course of construction for a period of 18 months before it was put in operation, a plant 50% greater than Lincoln's, Salt Lake is the town, you can form some idea of it by that.

32 Q. What in your opinion would be the average time in which the capital representing the original cost would be employed before any returns would be received on it?

— Well I would say in Lincoln one year, it might be put in in 9 months or might take 15, but a year would be a fair average I would say.

Q. Now in estimating the replacement cost, the value of the Lincoln plant, what if any time would you think would be necessary for this item and the interest on the money employed?

A. The number of items you mean?

Q. What if any sum, of that character would enter into the necessary cost of construction or replacement of the plant?

A. The apparatus and buildings I would say.

Q. Give the figures in this case?

A. Of the different items? Or any one of them do you mean?

Q. I do not make myself clear. What in your opinion would be in the aggregate that element of the cost of replacement represented by the interest on the capital employed before it earned any returns?

A. I have got it figured up here \$631,000, that would be necessary to be employed, that amount of capital, before any income would come from it.

Q. For what period of time?

A. For the period of a year.

Q. Now for the convenience of the court you may extend and figure it at the rate of interest that ordinarily would be required what that would amount to?

A. Well, the rate usually charged is 5%, and the amount of interest charges on the above sum would amount to \$59,146.88.

Question by STEWART:

Q. For a year?

A. Yes sir, for one year. Pardon me I haven't got that figured out here, that was the working capital I gave you. I can easily figure it for you. It would amount to \$31,595.65.

Q. You mean that should be substituted for the \$59,146. you gave before?

A. Yes sir. I supposed I had it extended but I haddent.

Q. What is usually and ordinarily the cost of procuring funds for an enterprise of this kind and financing it?

STEWART: The defendant objects as immaterial.

A. Well, now, to tell the truth this is a good deal of hearsay on my part perhaps somebody else could answer that better than I could, that has a little better knowledge than my knowledge extends, mine is hearsay, I really haven't had any experience in the financing of a plant and I would suggest you take somebody else.

Q. Has your company in Denver sold any bonds to any considerable extent?

A. Yes sir.

Q. Do you know the cost there of getting money?

A. Yes sir.

Q. Personally?

A. Yes sir, I bought some of the bonds.

Q. Do you know from your connection with this business what the costs are in other places?

A. Yes sir. I know it by hearsay evidence and hearing people talk and discuss it.

Q. Hearsay evidence and your own experience in that line of business?

A. Yes sir.

Q. In that line of business do you keep posted on all of these things pertaining to the cost of erection of plants of this kind and the cost of getting money?

A. Yes sir, on the cost of erection, etc., but the financial end not so much.

34 Q. Well, I think you can give your own estimate as to the cost of financing it?

Question by STEWART:

Q. Have you had anything to do with the financing of the Denver plant, or the handling of finances of it?

A. Why yes sir, I have assisted in selling some of their notes?

Q. What is the name of that company?

A. Denver Gas & Electric Company.

Q. And who has charge of the financial management of it regularly?

A. The executive officers usually, the president and manager.

Q. Who are they?

A. Henry L. Doherty is the president, and Mr. Frueauff here is the Vice president and general manager.

Q. All you have had to do with the raising of funds for the erection of the plant is you say you have assisted in selling some of the notes or bonds?

A. Yes sir.

Q. That is by personal solicitation?

A. Yes sir, among my friends and acquaintances.

Q. How those matters are handled by brokers you ever had any experience of that kind with their affairs?

A. No sir, not with the brokers direct.

Mr. STEWART: Objects to the question as propounded by complainant's attorney as immaterial and no foundation laid.

Q. You may give your own estimate then as to the cost of financing it then?

A. Well I know that it runs from 15% to 20%, it is hard to get it at the present time for less than 20%, that is you would have to pay 20% at the present time to get money,—the cost of negotiating the loans, getting the money etc.

Q. You may state whether any part of that is allowed by
35 a discount on bonds or industrials etc.?

A. Yes sir, frequently they allow 2% or 3% of that on discounts.

Q. If you put out a 5% security what discount do you have to give in the market now?

Mr. STEWART: Objects as incompetent, immaterial and irrelevant and no foundation laid, the witness has not testified that he knows.

A. Well, I couldn't tell exactly what it is within the last week, I haven't watched the markets very close.

Q. Are you acquainted with the cost of pipe and have you taken that into consideration?

A. Yes sir.

Q. And the cost of other machinery?

A. Yes sir.

Q. How do you get acquainted with those items, with the price of those items?

A. It is customary when we buy apparatus for plants to get quotations from different firms, figures and specifications and blue prints of their apparatus, and the cost of foundations and everything connected with it.

Q. Are you acquainted with whether or not the cost price is lower now or higher than it has been in former years?

A. It is higher now, yes sir.

Q. Are you acquainted with whether or not the price — oil is higher or lower?

A. The price of oil has been going up for the past 5 years to my knowledge, in some localities.

Q. What about the price of coal?

A. The price of coal has been going up for 2 or 3 years.

Q. Are you acquainted whether or not the price of labor has been

diminished or increased within the last few years, what is the trend?

36 A. It is increasing very rapidly, 50% in some cases in Denver.

Q. In what period of time?

A. A year and a half,—a year last April.

Q. And what has been the trend of labor and material such as are employed in the manufacture and distribution of gas, in the past 5 years?

A. Well, it is higher, much higher at present; not so much so on the first two as it has been in the last 3 years, that is the rise.

Q. Now we asked you this morning for your opinion as to whether or not the results of this plant locally here showed it to be an efficient plant or not; what is your opinion upon that.

A. Well, j-st as I stated, I think the plant as a whole, both the water and coal gas departments, are reasonably efficient, in fact very much so. With one exception of the one machine there which is called a Springer gas machine.

Q. That is the Springer gas set?

A. Yes sir.

Q. You mentioned that being a reserve set; explain what you mean by being a reserve set?

A. It seems to me that that was the one that was purchased and installed at the time the plant was moved to its present locality. At that time it was considered a reasonably up to date machine, and what would be up to date would be efficient. Since then they have invented improvements to water gas apparatuses that are considered a great deal more efficient than that particular style of machine and they purchased a new one at a later period, just how late it was I cannot say. They manage to make all of the water gas necessary with the new machine in addition to their coal gas. Occasionally they find it necessary to fall back on this Springer machine to take care of their increased send-out, like a State Fair
37 or something of that kind to the extent to which it is necessary to operate it, or if the other machine breaks down or needs re-lining or anything like that; they fall back on this.

Q. Is it reasonable and prudent in your opinion to use that as an emergency set?

A. Oh yes, it is perfectly satisfactory as an emergency. I wouldn't want to continue to use it daily, I don't think it would pay.

Q. From your knowledge of the market for supplies what would you say as to whether this location would make the cost of gas high or low as compared with other locations?

A. I think it would have a big influence on making the cost of gas high on account of the chances you run, running out of supplies.

Q. Why?

A. That holds good on all supplies that enter into the manufacture of gas making, principally coal, the oil is not quite so bad.

You are a great distance from the pipe market and coal market and oil market.

Q. How does that increase the cost?

A. They have got to carry a large supply, larger than ordinary, perhaps. If you were near the coal mines a 60 days' supply might be sufficient.

Q. How does that affect the cost of transportation, the cost of material delivered here?

A. That adds to the cost of delivery here on account of the freight rates.

Q. Have you noticed or not the services in this city are scattered proportionately to the number of miles of mains?

A. No sir, I wouldn't say it was unusually so. I think it is a little better if anything, than the average town. Denver is much more scattered than Lincoln in proportion of its population I think.

38 Q. I mean to the services?

A. That is what I say. Some of the services are on the outer edges, a great many of them; but it is worse than in Madison, Wisconsin, a town I am very familiar with, and it is better than Denver, so I would call it a good average town,—just a good average.

Q. How would it compare with cities like New York?

A. Well, it wouldn't compare at all there. There they have a consumer every 15 or 20 feet I presume, on account of their high buildings.

Q. How would it compare with some of the districts of high buildings in Denver?

A. Well, it would not be as favorable in the heart of the city as Denver would be, but take the city as a whole I think it would be a little more so.

Q. Well as a whole what would you say as to whether or not gas could be produced as cheaply here as it could be in the average locality, taking into consideration all the facts that you have named, the distance from the markets and the like of that?

A. And taking into consideration the locality also?

Q. Yes sir?

A. The average towns the size of Lincoln you mean?

Q. Yes sir.

A. I would say that the cost of manufacturing gas in a town like Lincoln, situated like it, on account of its long distance from supplies, would necessarily be larger than it would in other cities close to lake freights where freights are cheap.

Q. What do you mean by "lake freights," the Great Lakes?

A. Yes sir. Or close to railroad centers.

Q. Or to the coal mines?

A. Yes sir.

Q. And iron supplies?

A. Yes sir.

39 Q. How would it compare in that respect to Denver?

A. Well, Denver is better situated on account of the coal

market, they get their coal there much cheaper than here, also their oil. I think we have a shorter haul on oil.

Q. Have they extensive iron works there at Pueblo?

A. Yes sir.

Q. How far are they from Denver?

A. 117 miles from Denver.

Q. Now you may give again, including the items since you gave your first estimate, what in your opinion is the reasonable and actual replacement values of the properties owned and used by the complainant in its works at Lincoln for the manufacture and distribution of gas, the aggregate?

A. Just the items that I have gone over?

Q. You gave us \$691,000, before but you have since added some items which you said were not physical properties?

A. Well, the item of interest would enter in there?

Q. Yes sir?

A. Now it is a question to me what other items you want to come in here, do you want the cost of organizing the company?

Question by Mr. STEWART:

Q. Nothing has been said about that yet?

Mr. ROSE continuing:

Q. Well then I will ask you if ordinarily there is any expense attached to the organization of a company?

A. Yes sir, quite a little.

Q. Have you included in your estimates the value of a franchise or the cost of procuring a franchise and the right to do business in the municipality?

A. No sir.

Q. Ordinarily in a town of this size is the procuring of a franchise attended by any pecuniary cost?

A. Yes sir. There is considerable cost attached to any company. It doesn't run in proportion to the size of it.

Q. You have not included that item?

A. No sir, I have not yet.

Q. Well, in promoting a company of this kind you may state whether or not it is regarded as essential and necessary to include such items as that.

A. Yes sir, it is.

Q. Do you know whether ordinarily in a town of this size it requires the employment of labor and time and attorneys to draw ordinances, and the like of that, in order to get the ordinance through?

A. Yes sir, I know it does.

Q. You have no idea or knowledge of what the probable cost of that would be in this city?

A. Yes sir, I have already got some figures here. I know what it is in similar cities.

Q. What do you think would be a reasonable item for that?

Mr. STEWART: Objects as incompetent, immaterial and irrelevant.

A. Well I have got some figures here that shows the cost to be \$24950.

Q. Is that the organization?

A. That is the cost of organizing the company, the expense attached to the organization of the company.

Q. Does that include the securing of a franchise?

A. Yes sir.

Q. And the cost of getting money? What do you figure that was?

A. I figure that at 20%.

Q. Now you may extend those all out and give us the figures? Do you figure the securing and cost of the franchise separate there?

A. Yes sir.

Q. What is that?

41 A. \$100,000.—Oh no, the cost of securing it you mean?

Q. Yes sir?

A. The cost of organizing you mean?

Q. Does that include the cost of securing a franchise?

A. I think that would cover it in this town, yes sir.

Q. Now you may go on with your extensions and we will not interrupt you until you give your final estimate in answer to the previous question?

A. Well the cost of obtaining the money at 20% would be \$149512, this with the interest and the other items all added up amounts to \$904,572. . . .

Q. Did you fix any sum for the value of the franchise in there?

A. Yes sir, I have that but it is not included in these figures.

Q. Does that include any sum for the present value of the franchise obtained years ago?

A. No sir.

Q. Now does it require the expenditure of any money to promote the sales in order to get a patronage worked up to the present magnitude of the patronage of this company?

A. It does very much that is quite an item.

Q. Does it require advertising expenses.

A. Yes sir.

Q. Of any considerable sum?

A. Yes sir, perhaps greater than most of the articles that are put on the market for sale. It is true when you get them once you generally keep them, but I know the expenses should run figured up on the basis of the cost per stove would run from \$5. up to \$15. depending on the town and the locality. And in addition where there is a new gas plant it costs a great deal to get it started, it costs more than where it has been introduced for 4 or 5 years. When people get educated up to it it is not quite so expensive perhaps.

Q. You did not make any estimate of what that item of cost would be did you?

42 A. Here in Lincoln?

Q. Yes sir?

A. Yes sir.

Q. You have already shown the number of stoves in use?

A. Yes sir.

Q. These schedules that you have gotten up will you say they are correct to your personal knowledge?

A. Yes sir. I do not think there is even any error in them. I know they are correct so far as extensions and prices are concerned.

Q. Have you noticed whether or not the services in this city are scattered proportionately to the number of miles of mains? I understood you to say that you had misunderstood my interrogatory, if you desire to make any explanation you may make it?

A. Evidently my answer there says that they are unusually scattered as compared with the miles of mains. I understood the question to be the population, or houses, and the conditions. Now usually the question would be put by a gas man—I do not want to criticize the way you put it—but the question would be how is the district supplied? If you had put it that way I should have got it right away all right.

Q. You may state now?

A. I would say that Denver, although it covers 59 square miles of territory, or district supplied—the houses do not cover that much—but we have there 210 miles of mains and we have got 26,000 services, whereas here there only 62 miles of mains with 5597 services.

Q. State whether or not you have more services per mile of mains in Denver than there are in Lincoln?

A. Oh yes sir, we have considerably more. We have got 120 per mile of main there, whereas it is less than 90 here;
43 62 into 6000.

Q. Now having challenged your attention to the query I was making, you may state how this city would compare in respect to the number of miles of mains with other cities of like size?

A. Well, compare with Grand Rapids.—I am very familiar with the conditions there—

Question by Mr. STEWART:

Q. He is not asking you that.

A. I would say that usually where a company is as old as this and has been in the business as long as this I would say they haven't got as many services as they ought to have, they are so scattered here. The town itself is built up pretty well?

Q. How does that effect the general cost of distribution.

A. Naturally you would have to lay a great deal more mains to obtain a certain number of consumers per mile.

Witness excused for the present.

44 WILLIAM BRADFORD, being produced and duly sworn on the part of the complainant, testified as follows:

Examined by Mr. ROSE on behalf of complainant:

Q. What is your business?

A. I am an engineer?

Q. What school did you graduate from?

A. University of Wisconsin.

Q. What department?

A. The electrical engineering course, with additional work in chemistry.

Q. Did you specialize in any other line but electricity?

A. Well, the Electrical Engineering Course includes certain work in mechanical engineering, including steam engineering and work of that kind.

Q. And where do you reside at this time?

A. Lincoln.

Q. What is your business here in Lincoln?

A. Superintendent of Manufacturing.

Q. In the gas department?

A. Gas electric, yes sir.

Q. What work did you do after you graduated at Madison?

A. The year following I was at the University as an instructor in the experimental engineering department.

Q. What experience have you had in the manufacture and distribution of gas?

A. After leaving Wisconsin I went to Denver with the Denver Gas & Electric and spent 3 months there at the plant, working at the gas plant and then came here and spent about 9 months as engineer at the plant, gas engineer at the plant here until last July when
45 I took this position as Superintendent of manufacture.

Q. Now what is your total experience here in point of time?

— At Lincoln 2 years.

Q. Did you have immediate and direct charge of the manufacturing plant here at Lincoln and do you?

A. I do.

Q. Are you acquainted with the processes in use here?

A. Yes sir.

Q. You may state whether or not in your opinion the manufacturing plant of the complainant here at Lincoln is an efficient plant, referring of course to the gas department?

A. Compared with the same sized plant and under local conditions I think it is.

Q. What I mean is, do you get as nearly the maximum of gas out of the products used in its manufacture, and approximately at as low a cost as could be expected under the conditions here?

A. Yes sir.

Q. You have access to the books of the Company?

A. Yes sir.

Q. Have you made any examination, or assisted in conducting any examination to classify the consumers of the Lincoln plant according to the amount of gas consumed *per meter*?

A. Yes sir, I have helped on that.

Q. How much time have you spent going over the books and records of the Company to ascertain that fact?

A. On that particular schedule?

Q. Yes sir; checking and verifying and everything?

A. Probably 4 or 5 days.

Q. Who worked principally on making out the tables?

A. I worked considerably with Mr. Warner our Secretary.

Q. He lives in Lincoln here?

A. Yes sir.

46 Q. Do you know who else assisted him in it besides yourself?

A. The actual work of getting the summaries off, or the amounts off of the books was done by regular book keepers, and some of the other employees about the company.

Q. Was there a tabulation compiled giving the different classifications by Mr. Warner, with the assistance of yourself and others?

A. Yes sir.

Q. Just identify it; was it in the general form of this blue print which I now hand you, and which may be marked by the reporter as Exhibit "A"?

A. Yes sir.

Q. And this sheet Exhibit "B" is that the form in which you worked on it?

A. Yes sir.

Q. Are the classifications contained in this tabulation correct so far as your knowledge and examination extends?

A. Yes sir.

Q. What part, if any, did Mr. Honeywell have in making this tabulation?

A. The general summary was gotten into this form by Mr. Honeywell from the data gotten together.

Q. Are you familiar with the station cost of the manufacture of gas by the complainant for the year ending December 31, 1906?

A. Quite so, yes sir.

Q. Who furnishes the data to the accountants showing the cost of manufacture from time to time?

A. Well, that is gathered from various sources; the cost of material is taken from the general books and compiled in one general report; the manufacturing data is furnished by myself, the amounts used, etc.

47 Q. And in addition to the manufacturing cost what other costs enter into the cost of manufacturing and distributing gas in this city?

A. The distributing cost, and the collection cost, and the general cost covering the other items.

Q. Have you gone over the reports to ascertain from actual experience what the cost to this company was for the manufacture and distribution of gas per thousand feet during the year ending December 31, 1906?

A. Yes sir.

Q. Do you wish to have the report for reference?

A. Yes sir.

Q. You may state what the average cost of the manufacture and distribution of gas to this company was for the year ending December 31, 1906?

Mr. STEWART: The defendant objects as incompetent, inma-

terial and irrelevant and no foundation laid and not the best evidence.

A. The total for the year was 82.68 cents per thousand feet.

Q. And what was the station cost of manufacturing gas segregated from the other cost during the same period? You may give first the general average and then the manufacturing cost of coal gas and the water gas separately also.

Mr. Stewart objects as incompetent, immaterial and irrelevant no foundation laid and not the best evidence.

A. The total manufacturing cost net, was 47.89 cents per thousand.

Q. That is only the running expenses of manufacturing without any cost for distribution?

A. Yes sir, the manufacturing cost.

Q. And without any interest on cost of plant, or administration costs of any character?

A. Nothing of that kind.

48 Q. Or collection?

A. Nothing, just the material and labor.

Q. Or cost of promoting business?

A. Nothing enters into that, no sir.

Q. Now you may give the average cost during that year of the manufacture alone, eliminating all the other items, of coal gas and also water gas?

A. The coal gas was 54.26 cents per thousand, water gas 41.95 cents per thousand.

Q. And the cost of manufacturing coal gas was higher than water gas?

A. Yes sir.

Q. How does it affect the economic efficiency of a plant to employ both systems in the same plant?

A. It lowers the cost.

Q. In what manner?

A. From the fact that from the coal gas we produce our own coke for the water gas, that can be done cheaper than buying it on the open market, and the fact that one plant manufacturing one gas alone, either water gas or coal gas, would have to depend upon the oil or coal companies alone whereas in this way we have both to fall back on.

Q. While in this distribution your report shows that the coal gas actually cost higher than the water gas what would you say would be the effect upon the general average in using both systems?

A. With the regulations we have and the standard of quality the expenses would be about the same.

Q. What are the standards of quality here in Lincoln?

A. The requirement is 625 B. T. U. per cubic foot and a candle power of 18.

Q. Now you may explain what you mean by the term B. T. U.?

49 A. B. T. U. is the British Thermal Unit or unit for measuring heating value, it is the amount of heat required to raise one pound of water to one degree Fahrenheit.

Q. And a candle power represents what?

A. The candle power is the light given by a standard sperm candle.

Q. Are you sufficiently familiar with the standards in common and general use by gas companies of gas for heat and light to be able to tell whether this is a high or low standard that is required in Lincoln?

A. I do not think I am.

Q. Would you say from your personal knowledge that the cost of manufacture, the general cost of manufacture and distribution of gas given by you was correct in this city?

A. These costs here?

Q. Yes sir?

A. Yes sir.

Witness excused for the present.

50 Mr. B. C. ADAMS, being produced was sworn on behalf of the complainant and testified as follows:

Examined on behalf of complainant by Mr. ROSE:

Q. What is your business?

A. In the gas and electric business.

Q. Where are you employed and where do you live?

A. I live in Lincoln and am employed by the Lincoln Gas & Electric Light Company as general superintendent.

Q. And what education have you had as an engineer?

A. I graduated from the University of Wisconsin in 1903 and worked for 3 years after graduation with the Madison Gas & Electric Company at Madison, Wisconsin. In July 1906 I was transferred to Lincoln and have been with this company since.

Q. Are you familiar with the manufacture of gas?

A. Yes sir.

Q. What, if any, special examination have you made to ascertain the cost from actual experience of the manufacture and distribution of gas at Lincoln?

A. Why, I have, due to my position, been compelled to keep in touch with these reports from month to month and I have made no further examination than that. It has been my business to run the manufacturing end of it as well as the distribution.

Q. What acquaintance do you have with the machinery and equipment of the Lincoln plant?

A. I am thoroughly acquainted with it.

Q. What in your opinion is the degree of efficiency of this plant for economic manufacturing and distribution of gas, considering the size of the town and size of the plant?

A. First class.

Q. Are you acquainted with the standard of quality of gas in Lincoln here, that is what it is?

51 A. 625 heat units per cubic foot.

Q. How many candle power?

A. 18.

Q. What would you say as to whether the standard of heat units is one that is ordinarily in general use in cities of this class?

A. It is high.

Q. Higher than that in common and general use by companies situated in general as this one is?

A. I think so, yes sir.

Q. State whether or not that affects the cost of manufacture of gas?

A. It increases it.

Q. What are the local conditions here in respect to permitting cheap manufacture of gas?

A. Our distance from the market of all of the materials that we use very nearly—

Q. How does it affect the cost?

A. It increases it.

Q. In what manner?

A. Due to the freight we have to pay on the articles.

Q. Are you sufficiently acquainted with the cities and towns to determine what proportion of this city virtually is in streets, whether it is more or less than in towns of this same class?

A. My opinion is that any Eastern town would be more compact than Lincoln.

Q. In crossing intersections can you get any services on the pipe laid in the intersections?

A. No sir.

Q. Are you acquainted with whether or not there is any loss between the holder and the consumer?

A. There is no question about it, there is.

Q. Do you know approximately the amount of loss here in Lincoln, what per cent is lost in leakage between the station meter and the consumers' meter?

52 A. I believe we have run the last year and a half between 15% and 20% loss, probably more than that.

Q. How do you account for that leakage?

A. Why, it is due to the fact that pipes will leak through the joints.

Q. Well, you may state whether or not gas is a volatile substance and hard to hold?

A. It is.

Q. Is it practically or mechanically possible to construct a system at a reasonable cost that will not have leaks?

A. It is absolutely impossible.

Q. You might refer to the report book that you say is one of the books subject to your control and see if you can find any precise figures for the item of leakage or loss?

A. The gas unaccounted for in the year 1906 ending December 31st, 1906 was 16.56 per cent.

Q. Of that measured at the station meter?

A. Yes sir of the gas manufactured.

Q. Mr. Adams, what was the station cost or the strict manufacturing cost at the station of the gas per thousand feet, during the year ending December 31st, 1906 at Lincoln?

A. Manufacturing gas was —

Mr. STEWART: Objects as incompetent, no foundation laid and hearsay.

A. You just want the plant expense I understand?

Q. What is the average cost for your mixed gas?

A. 47.89 cents for gas mixed in the holder.

Q. That is the manufacturing cost alone?

A. Yes sir.

Q. Does that include anything for distribution, or interest on capital?

53 A. No sir.

Q. Or collection?

A. No sir.

Q. Or leakage?

A. No sir.

Q. Or stolen?

A. No sir.

Q. Or loss from any cause?

A. No sir.

Q. What was the average cost during that year of the coal gas manufactured?

A. 54.26 cents per thousand feet.

Q. Does that include anything except the naked cost of manufacture at the plant?

A. No sir that is all.

Q. What was the average cost of manufacture during the same year of water gas?

A. 41.95 cents.

Q. Now what was the cost of manufacture and distribution excluding any item for interest on capital?

A. 82.68 cents.

Q. You may state what your knowledge is as to the correctness of these items that you have been giving.

A. As far as I know they are absolutely correct.

Q. And what means of knowledge have you of their correctness?

A. I can compare with other reports that this company has had in years back. I never checked this thing over only in certain instances myself with a pencil; that is, these reports are made up by the book-keepers, but I know where we spend our money, and approximately how much it should cost per thousand each month.

54 Q. Are you familiar enough with the gas business and with the cost of manufacture and distribution, with the labor and fuel markets, and the location to say whether or not the

actual cost of manufacture and distribution of gas at Lincoln has increased or decreased during the past two or three years?

A. I am.

Q. You may state what the fact is?

A. It has increased.

Q. How do you account for the increase?

A. Increased cost of material and labor.

Q. To what degree has the cost of labor increased?

A. I couldn't tell you any percent, I cannot tell you in dollars, it has materially increased though.

Q. To what degree has the cost of material increased?

A. All the way from 10% to 20%.

Q. That is the material for the manufacture of gas?

A. Material for manufacturing and material for distribution.

Q. The cost of manufactured iron?

A. Yes sir, that has increased.

Q. What has been the trend of the market in all these supplies that you are required to keep up for the manufacture and distribution of gas?

A. The trend of cost has been to increase.

Q. For what time?

A. For the past 5 years.

Q. What experience have you had in the actual construction of plants of this character?

A. I was connected in the construction of the Madison plant for a year and a half, and I have been in actual charge of the construction of this plant since July last year.

Q. Have you gone over the items of construction that Mr. Malone exhibited in his testimony?

A. In what way do you mean? There is a lot of apparatus there that has been there a good many years.

55 Q. Have you gone over the items of mains and the like of that and figured over their necessary cost in labor and material, and the replacement, and such things as that?

A. Yes sir.

Q. All in detail?

A. I couldn't say, I helped him figure it, I have been over it with him to see there were no discrepancies.

Q. What in your opinion would be the actual replacement cost of the Lincoln property?

A. I would give Mr. Malone's figures.

Q. You heard his testimony here?

A. Yes sir.

Q. Do you know of his standing as an expert? Do you know his standing as a gas engineer?

A. Yes sir.

Q. What is it good or bad?

A. Good.

Q. Is he a practical man?

A. He is.

Witness excused for the present.

56 Mr. HOMER HONEYWELL, a witness for the complainant being produced was duly sworn and testified as follows:

Examined on behalf of Complainant by Mr. ROSE:

Q. Where do you reside?

A. Lincoln, Nebraska.

Q. What is your business?

A. General Manager of the Lincoln Gas and Electric Light Company.

Q. How old are you?

A. Pretty nearly 35.

Q. How long have you been engaged in the gas business?

A. 17 years the 1st day of October.

Q. Have you ever done anything else in your lifetime for a liv-lihood?

A. No, only when I was going to school.

Q. For a liv-lihood I said?

A. No sir.

Q. It has been the only employment you ever had in your whole life is it?

A. Yes sir.

Q. And how much of that time has been in the employ of the Lincoln plant here?

A. All of it.

Q. Are you familiar with the properties of the complainant in this case?

A. Fairly so yes sir.

Q. How long have you been the manager here?

A. Since the 1st of February, 1904.

Q. Prior to that time what office did you hold in the company?

A. Collector and book-keeper, and general roustabout.

57 Q. When you first went into the employ of the company who was its company manager?

A. It had no manager, D. E. Thompson was the active head.

Q. Who was the practical manager and head of the office?

A. J. K. Honeywell.

Q. What relation are you and he?

A. I am his son.

Q. And you grew up in the gas business?

A. Yes sir.

Q. Are you familiar with the books and accounts of this company?

A. Yes sir.

Q. Under whose general supervision and control are all of the servants of this company, whose immediate supervision?

A. My control.

Q. What if any special examination have you made of the company's books and accounts to ascertain the actual investments made by the company in its properties here in Lincoln, in the properties used in the manufacture and distribution of gas alone?

A. I have gone through all of the books.

Q. Have you compiled any tabulations?

A. Yes sir.

Q. To show the cost of the company of the properties?

A. Yes sir.

Q. Now are the books of this company voluminous?

A. Yes sir.

Q. This examination is had in the offices of the Company?

A. Yes sir.

Q. Are the books that you had access to here in the offices of the Company?

A. Yes sir.

Q. Open to the inspection of the solicitor for the defendants in this case?

58 Q. Is it practicable or possible for the court to go over all the volume of records that you have examined?

A. No sir, I should think not.

Q. And what examination have you made to compile summaries of the cost of manufacturing and the distribution of gas particularly in the years 1906 and 1907?

A. Oh I have been in touch with the monthly reports, the reports that are made up monthly and the general books, and have looked over those accounts and also those yearly books that were gotten up and also with the classifications or summaries that were gotten up. I did not do all of the actual work myself but I did part of it, and it was under my charge.

Q. Is it practical for one man to go through all of those and do all of this work, within reasonable bounds and get it out?

A. Absolutely impossible.

Q. Is it a work of great magnitude to prepare those summaries?

A. Yes sir.

Q. About how many people have worked on them?

A. I think I had 8 men working on the slips we got up; some of them worked as many as 12 days. I have worked on it altogether, not devoting all my time but about 6 weeks I guess.

Q. As general manager do you compile summaries annually or at stated periods?

A. Yes sir.

Q. Now I will hand you a manufacture and expense report purporting to be for the year ending December 31st, 1906, marked exhibit "C." I will ask you if that is a correct summary of the matters and things stated therein as gathered by you from the books of the company?

A. Yes sir, this is a correct resumé of the business of the gas department for the year ending the 31st of December, 1906.

59 Q. I will hand you also a summary of what purports to be a report of manufacturing and expenses of the gas department for the year ending June 30th, 1907, marked exhibit "D" and ask you to state whether to your knowledge that is a correct report of the matters covered by it.

A. Yes sir, this is also a resumé of the business we did for the year ending the 30th of June 1907 in the gas department.

Q. Do you have any competition in the lighting business?

A. Yes sir.

Q. What competition do you have here in the city of Lincoln?

A. Do you refer to just the gas department or electric, or both departments?

Q. In the lighting business I said?

A. Yes sir. We have in the gas department, we have competition with electricity, coal oil, with gasolene plants and gasolene lamps.

Q. What electric light company is doing business here outside of the Lincoln Gas & Electric Light Company?

A. The Lincoln Traction Company. The Lincoln Light, Heat and Power Company I think they call their corporation, and also the city is furnishing lights for the streets, for street lighting.

Q. The City is not doing any commercial lighting?

A. No sir.

Q. Is the Traction Company doing any commercial lighting?

A. Yes sir. The City is lighting their Engine Houses etc., where before that they had gas lighting.

Q. State what the fact is as to whether electricity comes in direct competition with gas for illuminating purposes?

A. There is not a day but what it does.

Q. Do you know whether or not the companies operating in the electric field are subjected at this time, or have been at any time to any occupation tax such as is imposed by one of the ordinances here against your company?

A. No sir they have not been.

Q. What do you use gas for and sell it for?

A. Gas for light and fuel.

Q. Do you have any competition to gas in the fuel line?

A. Yes sir; hard coal, soft coal, wood, gasolene, and coal oil stoves.

Q. Do you know the fact as to whether or not the dealers who sell coal and coal oil and other fuel in which you- gas comes in competition have to submit to any exaction of an occupation tax of 2½% or any other sum, such as is imposed by one of the ordinances here on your company?

A. None that I have ever heard of.

Q. How long has this company been in existence?

A. It was organized in March, 1872.

Q. And how did it get its franchise to do business; to whom did it succeed?

A. There was no company here before that time, it started originally in March 1872.

Q. Is that the present company the complainant?

A. Oh the name now is the Lincoln Gas & Electric Light Company.

Q. That is a new corporation too, isn't it?

A. Yes sir, a new corporation.

Q. And what was the original company?

A. The Lincoln Gas Company.

Q. And how long did the Lincoln Gas Company continue to conduct business?

A. Until I think, October, 1890, along in some of those months, but 1890 is the correct year.

Q. And then what was done with its property?

61 A. Then they still held the name of the Lincoln Gas Company and they purchased an electric light plant and they ran both gas and electricity until in June 1900 and then the name was changed to the Lincoln Gas & Electric Light Company.

Q. Was the name merely changed or was there a new company organized?

A. There was a new company but the name wasn't changed.

Q. And what did the old company do with its properties then?

A. Let me correct myself. The Lincoln Gas & Electric Company was the name of the company that sold to the Lincoln Gas & Electric Light Company.

Q. Now where did they get their franchise?

A. The Lincoln Gas & Electric Light Company?

Q. No, the Lincoln Gas & Electric Company?

A. From the Lincoln Gas Company.

Q. So the franchise originally granted has passed through one intermediate corporation to the present company?

A. Yes sir.

Q. And were their books of account and everything transferred?

A. Yes sir.

Q. And the accounts continued?

A. Yes sir.

Q. Have you served under the administration of each one of these companies?

A. Yes sir.

Q. Now the books of the original company, and the Lincoln Gas & Electric Company are where at this time?

A. At the office down stairs.

Q. And the books that you have gone over did they include all your books from the time of the organization of the original company?

A. Yes sir. From the inception of the original company.

Q. What sum has been expended for the acquisition of the company's properties which they now hold in the city of Lincoln, 62 for the properties employed in the manufacture and distribution of gas at the present time?

A. Up to the first of July, or 30th of June, 1907, I find something over \$603,000. the odd-dollars I don't remember.

Q. Does that include any sum for discount on bonds?

A. No sir.

Q. Does that include organization expenses?

A. Yes sir.

Q. How much in that for organization expenses?

A. Those figures I don't remember, they are quite modest though if I remember rightly.

Q. Does it include anything for the value of the franchise?

A. I think one of the books of the Lincoln Gas & Electric Light Company, —

Q. I mean for the franchise on gas not for electric light?

A. I haven't seen any, no sir.

Q. You may produce the schedule that you say you have compiled including the items that go to make up this cost?

A. The \$603,000?

Q. Yes sir?

A. I don't happen to have that with me, they are down in my desk, I can get them.

Q. You can produce them can you?

A. Yes sir. They are itemized by years, the expenses.

Q. The summaries that you prepared give the cost by years?

A. Yes sir.

Q. What is the value of the real estate, apparatus and other portions of the structural work entering into the construction of the manufacturing and distributing plants for gas at this time as compared with what it was during most of the years when this money was being expended?

63 A. It would be greater; the value would be greater than when it was bought.

Q. What did the complainants, the Lincoln Gas & Electric Light Company pay for the acquisition of these properties?

A. We had bonds of \$333,000, on the property, we had \$1,000,000, worth of stock for which they gave 40% or \$40. a share, \$400,000.

Q. Now are you referring to the Gas & Electric Company or the Complainant?

A. The Gas and Electric Company.

Q. When did they make the purchase?

A. The Lincoln Gas & Electric Company purchased this property in May, 1900.

Q. That was the first change in the organization of the company from 1873?

A. Yes sir.

Q. Now when did the complainant purchase it?

A. The Lincoln Gas & Electric Light Company took this property over on the 19th of December, 1901.

Q. And what did the complainant pay?

A. I do not know the terms.

Q. What is your assessed valuation this year for the city of Lincoln?

A. On the entire property?

Mr. STEWART: Objects as not the best evidence.

Q. What amount of taxes did you pay last year?

Mr. STEWART: Objects as incompetent and immaterial.

A. In round numbers about \$10,000.

Q. What portion of your total revenues, approximately, are derived from the gas department?

A. Oh, I don't know. Now for the year ending now it is more than the electric considerable.

64 Q. About what proportion of the value of your plant is comprised in your gas plant?

A. Two-thirds.

Q. And about what proportion of the taxes do you apportion in the ordinary conduct of your business, and was it necessary to apportion to the gas department?

A. Two-thirds.

Q. \$6600. and some odd dollars?

A. Yes sir.

Q. What was your bond interest last year?

A. Bond interest? About \$59,000 in round numbers.

Q. What proportion of that is it necessary to apportion to the gas department?

A. It would be proper to charge two-thirds of it. The bond interest is not divided, though, on our classification into two-thirds and one-third like taxes.

Q. I asked you what proportion of that is it necessary to apportion to the gas department?

A. Two-thirds would be proper.

Q. What is the amount of the bonds outstanding, approximately?

A. \$1,129,600. I think that is correct.

Q. Do you know what was the rate that those bonds commanded in the market in the year 1906?

A. I do not.

Q. What rate of interest do the bonds draw?

A. \$333,000. of those bonds draw 6%, and the balance draw 5%.

Q. Are you acquainted with what the consideration was for the issuance of those bonds?

A. Do you mean why did we issue bonds on the property?

Q. No, what did the holders of the bonds pay for them, do you know?

A. I am not familiar, no sir.

Q. Were they sold in the market for actual cash, are you acquainted with that?

65 A. No sir, I don't know.

Q. Were some of them issued during your administration here?

A. Yes sir, some of them issued.

Q. And what were they issued and sold for? What is the purpose of issuing them?

A. We issued them for extensions and improvement to our property.

Q. What I mean is did the holders of them pay the money for them or not?

A. The bonds that have been issued since my time money was paid for them yes sir.

Q. Do you know how much the company got for each \$1000. bond outstanding?

A. No sir, I do not.

Q. Don't you know during your administration?

A. Yes sir.

Q. How much did the company get for those?

A. I think they got 100 cents on the dollar for those.

Q. Was that in the re-organization scheme?

A. It was for all I know. When we issued \$10,000. worth of bonds that is what we got back for them. I don't know what the bonds sold for but I know that is what we got.

Q. Do you know whether or not those bonds are marketable now or have been within the last two years?

A. Yes sir.

Q. What is the fact as to whether or not they are marketable?

A. You can't sell them.

Q. Are you able to derive any money for necessary expenses, or have you been in the last two or three years, by the sale of the Companys' bonds?

A. No sir?

Q. Has there been any time when you could derive money
66 except at a ruinous rate of discount.

A. No sir.

Q. Have you had any emergencies in the last two or three years that have required the borrowing of funds?

A. Yes sir.

Q. What rate of interest are you required to pay in the market, and have you been continuously required to pay?

A. Well, there was one stock option where we tried to borrow \$100,000. and where we did get \$100,000. but it had to be taken up by some of the officers interested in our company though, where we issued some two years notes drawing 6% interest payable semi-annually and with them they carried an option to buy stock at 10 cents on the dollar for \$1,000,000. worth of stock for \$100,000. that scheme couldn't be floated here and it had to be taken up by some of our officers in order to get money to carry on our business. At the present time we are trying to float a loan of \$1,000,000. we have made the interest on those notes—they run for two years for that matter—we have made the interest 7% payable semi-annually and have put up as collateral for those notes bonds, \$200,000. per value of our bonds in a bank here and we haven't been able to sell those notes and I have now offered 2% to anybody who could sell those notes for me in addition to the 7% interest. I haven't been able to dispose of any of them at that rate. We have tried Chicago, Kansas City, Denver, New York, Omaha and any place where we thought they had money.

Q. Has there been any time in the past 3 years when the 7% notes of the company would command par in the market?

A. I don't suppose they would if you went out in the market to sell them, no sir.

Q. Has there been any time during your administration when the 5% bonds of the company would command par, or any figure
67 within 20% of par?

A. No sir. That is the reason they issued those notes at

the present time, we thought the notes would go better than the bonds nobody wanted the bonds.

Q. How much collateral are you offering in order to get the money on your notes?

A. Par value \$200,000. in order to get a \$100,000. loan.

Q. Two for one?

A. Yes sir.

Q. And your notes are going begging at that offer?

A. A 7% note and 2% commission yes sir.

Q. How long have you been offering that?

A. I think the first call I made to Chicago was in the fore part of December, 1906 to try and sell those notes and I have been at it diligently ever since.

Q. Are you interested in any other gas plants?

A. Yes sir.

Q. What in your opinion is the degree of efficiency of the manufacturing and distributing plant owned by the plaintiff?

A. I think we have an efficient manufacturing and distributing system.

Q. What would you say as to its being an economic one.

A. It is an economic one.

Q. During the year ending December 31st, 1906, what was the average net cost of manufacture and distribution per thousand feet of gas of this plant, not allowing anything for interest on the investment?

A. 82.68 cents per thousand cubic feet.

Q. What was the net rate that you received from the customers?

A. \$1.20.

Q. And what was the net profit applicable to interest and depreciation?

A. \$58,729.02.

68 Q. If you had in effect a rate of \$1. with a 2½% occupation tax on the same amount of business and the same costs what would have been the companys' net earnings applicable to interest on investment and after depreciation.

A. Why we would show a loss of \$10,437.82, if I have made no mistake.

Q. How many numbers of thousand feet did you sell, and then we can get at it?

A. 153,663,600.

Q. Well figure off 20% to make it to a dollar first how much would that be?

A. \$153,663.60.

Q. And what did you get for it?

A. Oh we did get \$184,395.02.

Q. How much difference would it make?

\$30,73.42.

Q. Take off the occupation tax also, the 2½% on \$153,663.66 and see how much that gives you?

A. \$3841.59.

Q. Now add the two together?

A. That makes \$34572.01.

Q. Now having made the computation, if you had been operating during that year on the rate of \$1. Net fixed by the ordinance in controversy here and had also paid the occupation tax of 2½% what would have been the net sum applicable to depreciation and interest on investment?

A. \$24,154.01, errors excepted of course in the calculation.

Q. Now what in your opinion would be a fair allowance or a per centum upon the value of the whole property for the element of depreciation each year in a property of this character.

A. Engineers usually count 10% good practice for depreciation.

Q. Do you think that is reasonable, or high?

A. I think that is reasonable.

69 Q. Now assuming the value of the plant to be according to

Mr. Malone's estimate approximately \$900,000. how much would the total net revenue lack of making up the item of depreciation alone that is if you had worked on the net rate?

A. About \$66,000.

Q. How much would it lack of making your return of 6% interest on Mr. Malone's estimated value of the capital invested at \$900,000.

A. About \$30,000.

Q. How much would it lack of earning a revenue at the legal rate of interest in this state of 7% on the estimated value of \$900,000. of capital invested?

A. \$30,000. in round numbers.

Q. Would your net revenues be last year at the present rate of income sufficient to enable the company to pay an earning at the legal rate of interest on the invested capital of \$900,000.?

A. No sir.

Q. In your opinion as manager could you have maintained the company in operation solvent if you had had a rate last year of \$1.?

A. No sir, absolutely not.

Q. Could you at the present time in your opinion?

A. No sir, no possible way that we could sell gas and make gas at a rate of \$1. and get a return.

Q. Now I will hand you exhibit "D" I want to ask you what was the net cost to the company for the manufacture and distribution of gas in Lincoln per thousand feet to all customers for the year ending June 30th, 1907?

Mr. STEWART: Objects as incompetent, immaterial, irrelevant and not the best evidence.

A. 82.31 cents per thousand cubic feet.

70 Q. Did that allow any item for earnings of any character upon the invested capital?

A. No sir.

Q. Or for depreciation?

A. No sir.

Q. Now omitting the items of earning on invested capital and depreciation what was the net profit per thousand feet upon the

gas manufactured and distributed for the same year which will be applicable to the depreciation and interest on investments?

A. \$64,646.35. I would like to change that answer to \$38.61 cents per thousand cubic feet.

Q. And that included a portion of the time when this ordinance would have been effective but for the injunction issued in this case.

A. Yes sir.

Q. Now during that same period of time if the occupation tax ordinance of $2\frac{1}{2}\%$ on the gross receipts had been in force and the net rate of \$1. prescribed by the ordinance had been in force what would have been the company's net profit per thousand feet to be applied to depreciation alone?

A. 16.41 cents per thousand cubic feet.

Q. What is your net average received during that year per thousand feet?

A. \$1.20-91-100.

Q. During that year what was the net profits for the sale of gas not counting the item of depreciation nor the item of interest on invested capital; gross?

A. \$54,646.35.

Q. Would that be sufficient to maintain the plant and keep it up, in your opinion?

A. No sir.

Q. Would it allow any return on the investment of any character?

A. No sir.

71 Q. Have you counted in these items of bond interest?

A. No sir.

Q. You have eliminated that entirely?

A. Yes sir.

Q. What do you say as to the local conditions and their effect upon the cost of gas locally here?

A. Lincoln is not advantageously situated for the manufacture of cheap gas; we are too far off from all the materials that enter into the manufacture of gas, and then too we have a scattered town, and we have a small population, wide streets that makes long service and big stretches of main across it, and parts of the town are changing, the residential part is changing, the lots were laid out to face North and South they are now building on the back end of lots and facing the houses East and West which requires practically a double investment along there.

Q. How does that effect the cost of manufacturing and distributing the gas?

A. In distribution you would have just that much more leakage.

Q. How does it affect the necessary capital to be invested?

A. It takes more capital.

Q. In this exhibit "C" also in exhibit "D" there seems to be a special classification made for consumers. Are you familiar with the methods upon which those classifications are based?

A. Yes sir.

Q. What number of meters do you have in use in Lincoln who consume not to exceed 1000 feet of gas per year?

A. For the year ending December 31st, 1906 we had 101 consumers or 101 meters that used less than 1000 cubic feet per year.

72 Q. Now in your opinion, what is the smallest monthly bill on each individual meter that will enable the company to come out even and get the whole cost of service?

A. We ought not to have a bill of less than \$2. a month.

Q. If the bill is not \$2. a month does that individual consumer pay the actual cost of his service in your opinion?

A. No sir.

Q. Even at the rate of \$1.20?

A. Even at the rate of \$1.20.

Q. At the rate of \$1. fixed by the ordinance what proportion of the Company's consumers would get their service on the flat rate system prescribed by the ordinance at less than the actual cost to the company of furnishing the service, not allowing anything in that actual cost for interest on investment or for depreciation?

A. Taking my figures at \$24. Under the \$2. a month?

Q. Take it in your own way?

A. There would be about 64.29 per cent of our customers.

Q. On your present system of doing business how small a percent of your present customers actually pay the sum of one-half or approximately one-half of the total revenues of the company; how small a percent?

A. That pay revenues of one-half?

Q. Yes sir. What is the smallest number of large consumers that now bring to the company one-half of its total revenue?

A. About 20% of our customers will bring one-half of our revenues in,—that is 20% of the big customers.

Q. That would mean 80% of the smaller customers would bring in half of your revenue?

A. Yes sir.

Q. Now on the ordinance system of level meter rate charges, how are the losses on the small consumers required to be made good?

A. By the larger and profitable consumers naturally.

73 Q. What rate of meter rent would the company be required to charge and exact in order to defray the actual cost of maintaining the meter according to the system of distribution which you say is correct?

A. About \$9.

Q. \$9.00 per year?

A. Yes sir.

Q. 75¢ per month?

A. Yes sir.

Q. Will the 25¢ per month rental permitted by the ordinance be sufficient to defray the actual cost to the company of maintaining the meter?

A. No sir.

Q. Do you know that is true?

A. Yes sir.

Q. Did you tabulate and classify the customers according to the amount consumed?

A. Yes sir.

Q. You may explain now how the level meter rate system of charges affects the ability of the company to get all the profitable business that it can?

A. In the first place a reduction or a level charge would reduce your unprofitable customers just that much more; it would make them just so much more unprofitable, it would take away some of the profit away from your bigger customers that are helping now to carry the others, take away some of the profit from the profitable customers that help pay the unprofitable ones. You couldn't by a level rate or by a straight meter rate reduce your rates enough to everybody to get the industrial business and get everybody to use all the gas they could.

74 Q. Now you carry a larger consumer at a less rate and still make a profit and then you can handle the business of the small consumer?

A. Yes sir. He doesn't occasion so much expense.

Q. Is the charge that you are required to make to all persons on a level meter system of charges in your opinion such as would be prohibitive of its use by a large consumer for industrial purposes?

A. Oh it absolutely is.

Q. If you were privileged to classify the rates according to consumers could you take on more profitable business than you now have?

A. Yes sir.

Q. Are you able to take on that business at this time?

A. No sir, because I must serve one and all at the same rate per thousand no matter what expense they occasion.

Q. How many industrial consumers do you have in Lincoln, how many large ones have you?

A. Oh, probably 50.

Q. What are the two largest?

A. The two large ones are newspaper offices, they run lineotypes and melt lead, and one thing and another with it they have got to have it.

Q. Are you able under this system to take on the business of the big hotels and rest-urants?

A. No sir.

Q. What is used in the place of gas at those places?

A. Coal ranges and charcoal burners.

Q. Now if you were allowed to make a reasonable service charge or meter rental proportionate to the demand upon your plant which these large industrial customers would have could you after taking on their business and getting their proportion of the fixed charges or rental, make a profit at any sum that happened to be
75 above the station charge after that?

A. Yes sir.

Q. You may state whether or not the fact that you are restricted in exactions of rentals to 25c., and restricted in charges to small

unprofitable consumers to a level meter rate requires you to make unjust charges to the larger consumers?

A. They have to pay more than what their just proportion of the expense would be, more than they ought to in order to carry along the little ones. Somebody has got to pay that, we cannot sell it at a loss.

Q. You spoke of competing in the gas lighting business with electricity. Is there any flat or level meter rate charges in vogue here in the city of Lincoln applicable to electricity?

A. Yes sir.

Q. A flat rate?

A. Yes sir.

Q. What is it?

A. The Traction Company gets 15c. a Kilowatt and 5c. a kilowatt.

Q. I said —.

A. Oh you meant ordinance?

Q. Yes sir?

A. Oh no sir.

Q. Is there any regulation by the city of Lincoln that requires electric light companies to give the same level meter rate to all consumers of electricity?

A. Not that I know of, no sir.

Q. Do you know whether any company in the lighting business here, in actual practice makes a level rate to all consumers large and small alike?

A. They do not.

Q. Do you know that?

A. Yes sir.

Q. Do you know in coming in competition with the other company whether they do or not?

76 A. Yes sir. I know they do not.

Q. And what is the effect of the differentiating system of charges upon your gas business?

A. It knocks it. It has a bad effect upon it.

Q. What tendency does it have in bringing to you the unprofitable consumers?

A. That is just exactly what it does, it takes away the profitable consumers and brings the unprofitable consumers.

Q. In an electric light company what is the fact as to whether or not an electric light company has a right to charge a sufficient meter rent to compensate it for the service?

A. They have.

Q. And the effect of that is what?

A. It would be to give us the unprofitable gas consumers and take the profitable ones to the other company.

Q. Enabling the competing electric company to avoid taking on the unprofitable business and force it on to you?

A. Yes sir.

Q. And enable them to steal from you the profitable business that you could get if you had the same system in vogue for the gas?

A. Yes sir.

Q. Do you feel that in your actual practice in your business of competition?

A. Yes sir, we meet it right along.

Cross-examination by Mr. STEWART:

Q. This exhibit "E," gas construction does that include both replacements and extensions?

A. No sir, just constructions. There is a well defined line between replacements, or repairs, and construction.

Q. I am not talking about repairs?

A. No sir that does not include replacements.

Q. In any sense at all?

A. No sir.

77 Q. When you rebuilt the plant,—when did you rebuild it practically?

A. In 1900 and 1901 the plant was built over there, that is a new plant though, it was never there before.

Q. These are only additions then?

A. Yes sir.

Q. And are not replacements?

A. No sir.

Witness excused for the present.

It being now 4:30 an adjournment was taken until tomorrow morning at 11 o'clock A. M., September 24th, 1907.

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11:45 A. M., Sept. 24, 1907.

Met pursuant to adjournment and the following proceedings were had and done.

HOMER HONEYWELL, recalled on behalf of complainant, testified as follows:

Examined by Mr. ROSE on behalf of complainant:

Q. Take the report for the year ending June 30th, 1907, and tell me what was the aggregate of the sales of gas for that year.

A. Total from gas alone was \$200,693.39.

Q. Give it in number of thousands of ft. sold.

A. 167,445,600.

Q. What did you realize from that in money?

A. \$200,693.39.

Q. If the net maximum rate, after discount, was \$1.00 per thousand ft. what would you have realized on it?

A. \$167,445.60.

Q. And if you had been paying an occupation tax in addition to your ad valorem property tax of $2\frac{1}{2}\%$ on the outfit, what would have been the amount of the occupation tax?

A. \$4,186.14.

Q. What were your net revenues based upon the rate in force of \$1.20 net that would be applicable to interest, investment and depreciation?

A. \$64,646.35.

Q. What would have been your net revenues in the same business applicable to interest on investment and to depreciation on the same volume of business if your rate had been \$1.00 and in addition to your general property tax you had been subjected to an occupation tax of $2\frac{1}{2}\%$ on gross receipts?

79 A. \$27,212.42.

Q. What is your knowledge as to whether or not that sum would be adequate to meet the item of depreciation in the values of the properties employed in the plant alone?

A. It would be inadequate.

Q. What profit would the company have been able to make upon the capital invested in its business?

Mr. STEWART: The defendant objects as incompetent, immaterial and irrelevant, and for the further reason that there is no evidence showing what the amount of capital is that is invested.

A. It would not have been able to make any profit.

Q. Upon the experience of last year, you may state from your knowledge of the business of this company, whether the rate of \$1.00, if the occupation tax of $2\frac{1}{2}\%$ on gross receipts had also been exacted, would have equalled the actual cost of the service, not counting anything for profit or interest on investment?

A. No sir.

Mr. ROSE: We give notice now that we will ask the exhibits identified by this witness be attached as a part of his evidence, and authenticated by the examiner, and we will offer them in evidence along with the oral testimony of this witness.

Mr. STEWART: The defendant objects as no foundation laid, and incompetent.

Q. Mr. Honeywell, are you acquainted with the handwriting of the different persons who have made entries in the books of account that you have examined during the period that you have been connected with the company?

A. During the period I have been connected with the Company? yes sir.

Q. Were they written by persons who were in the actual employ of the Company?

A. Yes sir.

80 Q. Were the entries in the book correct?

A. As far as I know, yes sir.

Q. Do they give a correct history of the daily transactions of the Company from time to time during its existence?

A. Yes sir.

Q. Did you work, at any time, on the books personally?

A. Yes sir—Oh, not regularly employed as the bookkeeper, but have worked on them on and off. I do not know that there are any entries in my handwriting.

Q. Did you make up monthly summaries and reports in the actual conduct of the business of the Company?

A. The gas Company does, yes sir.

Q. And how long have they been making those summaries?

A. Since 1900.

Q. Do you have any personal knowledge or acquaintance as to whether previous to the final passage and the taking effect of the ordinance in controversy in this suit the complainant, the Lincoln Gas & Electric Light Co. made any offer to exhibit its books of account and show the actual cost to the members of the City Council or a committee appointed by them?

A. Yes sir.

Q. What is the fact?

Mr. STEWART: The defendant objects as immaterial and incompetent.

A. That we did make an offer to show our books to a committee appointed by the City Council in order to prove to them that we could not supply dollar gas.

Q. Was that done in open council meeting?

A. Yes sir.

Q. In your presence?

81 A. Yes sir, in my presence.

Q. Now you may state whether or not there was any condition requested, such as suspending the rate fixed, pending this investigation.

A. We asked them to suspend the rate until we could complete our investigation.

Q. Do you remember whether or not the proposal was acted upon?

A. Yes sir; they did not accept it. They acted on it adversely.

Q. Was there any motion made by any councilman at that time at the council meeting at which that took place, looking to the acceptance of your offer and investigation of the rates?

Mr. STEWART: The defendant objects as incompetent, immaterial and irrelevant and not the best evidence.

A. I do not remember that any motion was made; I don't remember that.

Q. Do you remember that no motion was made, that the suggestions of the Company were received by silence or otherwise?

Mr. STEWART: The defendant objects as incompetent, immaterial and irrelevant and not the best evidence.

A. Silence, if I remember rightly.

Q. You may state whether or not the city before the passage of this ordinance by its council or any other body, or by any accountants, examined into the details of the Company's business to ascertain what was the cost of the manufacture and distribution of gas in the city of Lincoln.

Mr. STEWART: The defendant objects as incompetent and immaterial.

A. They did not.

Q. You may state whether or not in like manner, or in any manner, they went over the properties of the Company, or
82 its books, to ascertain what was the cost of the manufacture and distribution of gas in Lincoln.

A. They did not.

Q. Or to ascertain the capital necessarily employed in the conduct of the manufacture and distribution of gas in Lincoln.

A. They did not.

Q. Were you present at the meeting of the city council at which the ordinance in controversy here was introduced, read and considered?

Mr. STEWART: The defendant objects as incompetent, immaterial and irrelevant.

A. Yes sir.

Q. Were you present at all such meetings?

Mr. STEWART: The defendant objects as incompetent, immaterial and irrelevant.

A. I think I was. I was a pretty regular attendant those days.

Q. Did you hear personally the expressions made by the councilmen upon the floor of the council in respect to the gas company's ability to reduce the rate to a dollar.

Mr. STEWART: The defendant objects as incompetent, immaterial and irrelevant.

A. Yes sir.

Q. Did you hear any expressions upon the floor of the council while this matter was under consideration, touching how the adoption of such a rate would effect the solvency of the Company and its business to continue operations.

Mr. STEWART: The defendant objects as incompetent, immaterial and irrelevant.

A. (Not answered.)

83 Q. Or in respect to the possibility of the enforcement of such a rate, forcing the complainant into the hands of a receiver.

Mr. STEWART: The defendant objects as incompetent, immaterial and irrelevant.

A. Yes sir.

Q. Well, you may state what expressions touching this matter were made by any of the councilmen during the consideration of the ordinance, and name the councilmen.

Mr. STEWART: The defendant objects as incompetent, immaterial and irrelevant.

A. Mr. John S. Bishop said the only way that they would ever get the water out of the stock or bonds of the Gas Company was to put them into the hands of a receiver, and he in his humble way would do all he could to bring that about. Those were about the words.

Q. Was he one of the councilmen who acted upon this ordinance?

Mr. STEWART: The defendant objects as incompetent, immaterial and irrelevant.

A. Yes sir.

Q. Was that statement made in the presence of his fellow councilmen who also acted?

Mr. STEWART: The defendant objects as incompetent, immaterial and irrelevant.

A. In open council.

Q. And during the consideration of this ordinance?

Mr. STEWART: The defendant objects as incompetent, immaterial and irrelevant.

A. Yes sir.

Q. And thereafter was the ordinance passed.

Mr. STEWART: The defendant objects as incompetent, immaterial and irrelevant.

A. Yes sir.

Q. Were there any daily newspapers published at that time
84 in the City of Lincoln?

A. Yes sir.

Q. Do you know whether or not the passage of a dollar ordinance was agitated in the local press?

Mr. STEWART: The defendant objects as hearsay, not the best evidence, incompetent, immaterial and irrelevant.

A. It was.

Cross-examination.

Examined by Mr. STEWART on behalf of the defendant:

Q. What is the total amount of your bonded indebtedness?

A. \$1,129,600.00.

Q. And \$333,000 draws 6% and the balance 5%.

A. Yes sir.

Q. What is the amount of your outstanding stock?

A. \$2,250,000.00.

Q. You haven't been paying any dividends on that.

A. No sir.

Q. You keep your interest on your bonded indebtedness paid up?

A. By hard scratching, yes sir.

Q. And you spoke yesterday that at times when you had to have money you had issued \$10,000.00 worth of bonds and you had received \$10,000.00 from some source, in money; do you mean that the purchasers paid you that amount or did you get it from your officers east, or how is that?

A. I don't know who the purchasers were, that was deposited to our account in New York.

Q. You don't know who deposited it there?

A. No sir. I don't know whether the bonds sold for 80c, 90c or \$1.10 or what.

85 Q. You simply sent the bonds to whom?

A. Emerson, McMillan & Company.

Q. Who are they?

A. Bankers and brokers in New York City, #40 Wall Street.

Q. How many bonds have you issued in that way since you have been in charge that you know of?

A. Well, I would be unable to tell you the exact amount.

Q. Well, can you tell me pretty close to it?

A. Possibly somewhere in the neighborhood of \$50,000.00 or \$60,000.00 at a guess.

Q. When were those issued?

A. In 1902, I believe.

Q. Was that at a time when the present owners of the plant were the owners.

A. Yes sir.

Q. Now, you operate your electric lighting business together, do you?

A. Yes sir.

Q. How do you separate or divide the expenses of the two classes of business?

A. The expenses, except officer's expenses—and by that I mean superintendent, and superintendent of manufactures, and clerical expenses and taxes, are divided accurately, just what they use, and coal, is given to the electric department and their own oil, and an accurate account is kept of that, and some is divided one-half and one-half and some two-third- and one-third.

Q. How do the receipts of the electric department compare with the receipts of the gas department?

A. They are not as much.

Q. Well, what are they?

86 A. I don't remember the yearly receipts of the electric department, I couldn't tell you that.

Q. You could give me approximately, couldn't you?

A. I would hate to guess. I could give it to you accurately if I got the books.

Q. You will get them and put them in your answer here?

Mr. ROSE: The complainant objects as immaterial.

Q. What is the value of the plant and equipment of the electric lighting department as compared with the gas department?

A. Probably about one-third.

Q. And that is the way you come to make a division of expenses, apportioning one-third to the electrical department and two-thirds to the gas department.

A. Yes sir; on the investment proposition.

Q. This statement that you have here marked exhibit E, being an itemized statement of the gas construction, or the amount expended for gas construction for the years beginning in 1873 and ending with June 30, 1907, I believe you say that that shows the

money that has gone into the gas construction as distinguished from repairs or replacements?

A. Yes sir.

Q. Where did you get those figures from?

A. From the different books of the Company.

Q. Did you make them up yourself?

A. Yes sir.

Q. And this is supposed, or does show, what has been paid for all of the equipments and everything connected with the gas plant from the beginning up to the present time.

A. Yes sir.

Q. Does that include your real estate investments?

A. Only in this way, when the original plant was built, 87 it was built for a certain specified contract sum, and with that contract they got three lots on the corner of 7th and "N" Streets. When the Gas Company was moved the three lots at the corner of 7th and "N" Streets were traded to the Burlington railroad for a block of ground known as block 79.

Q. Well, did you make any additional investments?

A. Not for real estate, no sir.

Q. Also for building and permanent improvements.

A. Yes sir.

Q. And of course for machinery and equipments, that covers that.

A. Yes sir.

Q. And mains and service and everything of that kind.

A. Yes sir.

Q. Hav- you got all of the property that is represented as having been purchased by these various sums for the different years, on hand now?

A. Probably not.

Q. Well now, what haven't you got.

A. Well, I remember of three boxes and a center seal, etc., that we haven't got, that we sold; that is about the only pieces of apparatus that I remember of.

Q. Now, what did you buy back in 1873 for \$52,247.00?

A. I can't tell you what that was for; I don't remember.

Q. But you can tell me?

A. Yes sir.

Q. Tell me.

A. That was the compact price for building the gas works at that time.

Q. And that included the plant equipment, I suppose, outside of the mains.

A. Yes sir.

Q. Have you got that equipment yet?

88 A. I could hardly answer "yes" to that. There were wooden mains; now, we hav'nt got any wooden mains.

Q. I am not referring to the mains particularly, I am referring more particularly to the plant where you make the gas.

A. No sir, those old boxes we sold I think were a part of that plant. They made a different style of gas in those days to what they do now.

Q. Have you got anything in the plant that you had in 1873, do you suppose, in the way of machinery or equipments, or appurtenances?

A. I think we have that holder, I think that old holder has been remodeled and possibly some oil tanks,—that is, the gas relief holder, a small holder.

Q. Now, in 1890 and in 1891 and 1892 there seems to have been large expenditures for gas construction; \$34,301.00 in 1890, and \$48,429.00 in 1891 and \$71,284.00 in 1892; now, what is that for, in a general way?

A. That was when we moved the works from 7th and "N" Street place over to the new block, and the construction of the buildings and the apparatus and holders, and laying the new mains; the Gas Company was rejuvenated at that time.

Q. And did you buy new machinery.

A. Yes sir.

Q. Constructed practically a new plant outside of the mains at that time.

A. Yes sir. We put in new mains. We did a big lot of new work then.

Q. Now, in building this new plant and moving it over there and building it there, you did not count that a replacement of the old plant.

A. No sir. I think there was only one piece of apparatus
89 that they moved over there, that I remember of, and that was that Springer Water Gas set.

Q. That is the set that Mr. Malone spoke about as being out of date?

A. Yes sir.

Q. And so you charge up all, or these figures that you have given here include all the expenses that the Company went to in reconstructing its plant at that time.

A. In building the new plant.

Q. Now, in 1901 and 1902 I see large expenditures again, now, what was that for?

A. 1900 was when the old Gas Company sold out to the Lincoln Gas & Electric Co., and a corporation for the new business was started and mains and services laid and new boxes bought and scrubbers, etc.

Q. This doesn't include any construction for the electric department at all.

A. No sir.

Q. This is confined strictly to the gas department?

A. Yes sir.

Q. Well, this \$603,278.00 total that you have here includes then as a matter of fact, all that has been paid out in constructing your gas plant, and also where you had to lay new mains on account of the old ones being worn out, and where your plant was rebuilt and the old one abandoned, it includes all of those items.

A. It doesn't include replacing mains.

Q. What kind of an account would you have for that?

A. Well, you would call it main maintenance, for instance, if you took up a four-inch main that was worth 50¢ a foot, to you, and laid down an 8 inch that was worth \$1.00 a foot to you,
90 we would charge construction with the difference, 50¢ only; we wouldn't charge it up with \$1.00 again. This is only an arbitrary illustration.

Q. Supposing a main was worn out entirely and you had to put in an entirely new one, how would you charge that up?

A. It would be maintenance.

Q. And wouldn't go in construction at all?

A. No sir.

Q. How would it be, take your old wooden mains, when you had to lay in an entirely new line, would that be entered up to construction or maintenance?

A. Well, I don't know about that. That was before my time, of course.

Q. You don't know how that would be done?

A. No sir. There was very little of it, anyhow; it would have no effect on the general matters.

Q. Have you had to relay any of your iron mains, that is, take old linings of them out and put them down?

A. Yes sir.

Q. When did you do that?

A. I think it was in 1904, we took up the main on "M" Street, and I think in 1901 we took up another main on "P" Street.

Q. What did you take them up for?

A. To give better service.

Q. And put in larger mains?

A. Yes sir.

Q. Have you had to take up any of your iron mains on account of their being worn out? I mean whole lines of them?

A. Not whole lines, we have, at different places on account of electrolysis.

Q. When did you do that?

A. Oh, we do some of that right along; not within the
91 last couple or three years, though.

Q. Where have you taken up any in that way, and to what extent?

A. At Harley's corner there was a part of it that we were bothered a good deal about, and down at H. W. Brown's place.

Q. How much did you have to take up there?

A. Probably a length or two; something of that kind.

Q. And you would take that up and put in a good new main and charge that up to maintenance?

A. Yes sir.

Q. Have you had any lines of mains or service pipe, that would give out entirely so you had to take the whole business up and put in entirely new?

A. Oh, yes sir, we renew services right along.

Q. State it by the mains first.

A. Not so much on the mains as we do on service pipes.

Q. Have you had any cases of that kind?

A. Where we've had to take up whole lines?

Q. Yes sir.

A. Not during my time.

Q. And that extends back how far?

A. Seventeen years. I mean I am more particularly acquainted with it since I have been connected with the Company which is seven years.

Q. So far as you know, have they had to take up any whole lines during the seventeen years?

A. Before that I don't know. I wouldn't know.

Q. Before what?

A. Oh, seventeen years ago, I was just a collector then.

Q. Since you've been in there, have they?

92 A. No sir, we haven't taken out whole lines. I will say with an exception, and we didn't take that up for that reason, but the line on 27th Street when we ran to the State Farm was in bad condition; it was eaten through, place after place; we took that up but it wasn't because we knew it was bad, but it was bad.

Q. What did you take it up for?

A. We ran a line out to the State Farm and had to put in a bigger pipe there.

Q. Are your lines all laid with the same kind of pipe, that is, I mean the same quality,—not in size I don't mean.

A. Oh, a two-inch main would be wrought iron and a larger main would be cast iron.

Q. Any difference in the price, or in their wearing power?

A. Yes sir.

Q. I mean between a wrought and a cast iron.

A. Yes sir, there is a difference in price.

Q. Which is the more expensive?

A. Cast iron pipes are the more expensive.

Q. And supposed to last longer?

A. Yes sir.

Q. What is the idea of putting in a wrought iron pipe?

A. It is easier to lay, you can put it in cheaper, and in small sizes it does just as well.

Q. Are all your two-inch mains wrought iron pipe?

A. Yes sir.

Q. And all of your mains that are larger than that are cast iron?

A. Yes sir, cast iron.

Q. Have you a detail, or can you furnish me with a detail of the items that go to make up the figures here in exhibit "E?"

A. I would have some trouble getting the items in detail for you, classified probably as to works and distribution system for the older notes there, for the later notes I can.

93 Q. I would be glad to have you furnish me with the details of what items go to make up this total of \$603,278.14.

A. (Not answered.)

Q. Does the cost of gas per thousand as a rule run less as the output increases in quantity?

A. Run less as the output increases?

Q. Yes sir.

A. Why, your distribution cost would be smaller, your office administration cost also; it might not be noticeable in the manufacturing.

Q. What would you say as to whether it would decrease the cost of manufacture as the output increases, everything else being equal?

A. You would have to have a big increase in output to make a small decrease in cost.

Q. In the manufacture.

A. Yes sir.

Q. And in the distribution and office expenses there would be a reduction?

A. There would be some difference, yes sir.

Q. That is, your output last year was how much?

A. 167,000,000 in round numbers.

Q. If you would double that output, would it tend to decrease the cost?

A. I would say that there would be some reduction in cost, yes sir.

Q. Now, there has been quite an increase in your output, hasn't there?

A. Oh, we've had a fair increase.

Q. That is, the increase of the year ending June 30, 1907, shows an increase of about 14,000,000 feet over the output of the
94 year ending December 31, 1906, according to the figures you have given us here.

A. If those figures are correct, that would be about right, yes sir.

Q. Has there been a general increase in your output right along for some years past?

A. Oh, for the last five or six years, yes sir.

Q. Now, I notice in exhibit "B," being the report of business for the year ending June 30, 1907, that your net earnings were \$64,646.35, and that the net earnings for the year previous \$67,086.07; now, how do you account for the decrease in the net earnings when your output increased?

A. Material and labor and repairs might have gone up, and probably did.

Q. You don't know just where that comes in?

A. I couldn't tell just from looking at that, or from getting those figures, of course.

Q. It is a fact that notwithstanding an increase in your output this account shows a decrease in the net earnings?

A. Yes sir, that might be true.

Q. Well, it is true, according to this.

A. Probably it is.

Q. Now, your reports show, as a matter of fact, don't they, that the distribution expense for the year ending June 30, 1907, was nearly a cent less per thousand than for the year ending December 31, 1906; now, how do you account for that?

A. I am not familiar with those figures but it might be for the repairing of mains, cutting down your leakage, etc.

Q. Does that go in the cost of distribution?

A. Yes sir, your leakage is in the distribution cost.

Q. Well, repairing mains; is that in your distribution cost?

95 A. Yes sir. Street main maintenance and main maintenance goes into distribution cost.

Q. Well, isn't that a little remarkable that your distribution cost should fluctuate as much as one cent per thousand.

A. No sir.

Q. Now, I notice that in comparing these two reports, that the last one shows an increase in the manufacturing cost per thousand; now, do you know why that is?

A. The one for 1907?

Q. Yes sir.

A. Increased cost?

Q. Of what?

A. Material and labor.

Q. What?

A. Coal, for one item.

Q. Is coal any more expensive now than it was the year before?

A. Yes sir.

By Mr. ROSE: And oil?

A. Yes sir, and oil, too, and labor is more. Oil is up.

Q. If that is true, of course it shows in the detail of this report, doesn't it?

A. Yes sir.

Q. What do you pay for coal now?

A. \$5.52 f. o. b. cars Lincoln.

Q. What kind of coal is that?

A. Youghiogeny.

Q. Well, I notice that you have in the report ending June 30, 1907, your stock of coal on hand, marked as having cost you \$6.41.

A. Yes sir; that is handling is in there, that is in coal stock.

Q. And received during the twelve months you have it charged with \$5.47, now, coal has usually been coming down, hasn't it?

96 A. Yes sir.

Q. How do you explain that?

A. \$5.47 is it charged in there?

Q. Yes sir.

A. We had a cheaper price, and our contract price changes in April, and we get credit for all the lower price coal we have in stock at that time; we take an average price on that.

Q. Well, it is entered up in the report here as stock that you had on hand at the beginning of this twelve month period as \$6.41, as having cost you that, and what is received during the twelve months period is entered up as \$5.47; that would indicate that the coal is not as expensive.

A. No sir; coal is more expensive; we had a lower price.

Q. Why doesn't the report show it?

A. It shows the average price there, it doesn't show the two prices.

Q. The average is lower for this twelve months than for the previous twelve months.

A. Yes sir, because we started in in April this year on high price coal, on coal we bought exclusive of handling.

Q. That wouldn't explain anything.

A. Yes sir. For instance, if we had one hundred tons down there of \$6.00 coal and 100 ton of \$5.00 coal, the average of that would be \$5.50 per ton, and that is how you get your \$5.47.

Q. The average for the last twelve months is less than the average for the previous twelve months.

A. That might be true, too; but that is coal that comes in.

Q. Will you show me where your oil stock is in this report marked exhibit "D"?

A. I do not know as we have got an oil stock—Oh, yes, 97 here it is on page 11, it shows on the manufacturing part, only the amount used.

Q. Can you get a statement of the price paid for oil.

A. I can tell it to you, or get you the contract.

Q. Your output on gas is about 130,000,000, water gas, and the balance, making up the 167,000,000 is coal gas.

A. That is not output, that is manufactured.

Q. Have you a statement here showing the output of the mixed gas?

A. Yes sir.

Q. On page 10 it says, 67,000,000 ft. of coal gas made, and on page 11 it shows 130,000,000 of water gas made; now, that is mixed, is it?

A. Yes sir, that is mixed together.

Q. What becomes of all of that?

A. It is sold, and some of it leaks, and some is used by the Company.

Q. This leakage is charged to the distributing cost, is it?

A. Distribution cost, yes sir.

Q. Isn't 20% a pretty large per centage for leakage for a good plant?

A. Not so very, no sir.

Q. Do you know anything about the leakage of a well-constructed plant ordinarily is or would be.

A. Oh, they usually figure 16 to 20% leakage, and over 20%.

Q. On a first-class plant?

A. Yes sir.

Q. Well, is that about what they ordinarily lose by leakage?

A. Yes sir, that would be good practice.

Q. Well, what do you mean by "good practice"?

A. Well, common standard; what other people lose by leakage.

98 Q. You ordinarily lose that amount by leakage?

A. Yes sir.

Q. The most of your expense, the biggest item of your expense in your distribution account is the leakage, is it?

A. That is a big item, yes sir.

Q. I notice on page 10, under line 1041 and 1042 the items of receipts per ton for coke sold, and receipts per ton coal carbonized are not carried out here, is there anything in this report to show what was received for those items?

A. We can fill that out, yes sir.

Q. But there is nothing in this statement?

A. Yes sir, in the coke stock there, in the rear there.

Q. Now, on page 25, it shows the amount for coke stock, or rather, the value of it, not what was received, and also the value of the par stock. Now, where do you credit that up?

A. They are credited in a manufacturing report, coke residual 1004, and tar residual, 1005; the credit is taken directly to the manufacturing for the coke and tar.

Q. This seems to be what it cost you.

A. No sir, this is the credit. You see, the gas costs so much, and then we take credit for the coke and for the tar made, and then you see, the cost down here only so much. We credit the manufacturing with the amount that coke and tar is worth to us per gallon; it is taken directly out of the manufacturing.

Q. There is a per cent here, but I do not see any place where you've got the figures.

A. Down there at the bottom of the manufacturing report; pounds per ton of coal carbonized.

Q. 1250 lbs.

A. Yes sir.

99 Q. And coke used for bench fuel, 138 lbs., what is that?

A. That is coke used in the furnaces to heat the retorts.

Q. And tar made per ton of coal carbonized, 8.8 gallons.

A. Yes sir.

Q. What is that tar worth a gallon?

A. 2 cts; we credit it up at 2 cts.

Q. Is that what it is worth in the market?

A. You have no market for it, you just have to find a market. You couldn't sell any quantity of it for 2 cts.

Q. What is the coke worth?

A. \$5.00 it is credited up.

Q. And what is it worth in the market? What is it worth if you had to buy it?

A. I don't know; I haven't bought any coke for such a long time I don't know what it is worth.

Q. You sell some at retail.

A. Yes sir.

Q. What do you get for that?

A. \$7.00 or \$7.50.

Q. Is that on this report anywhere, what is received from that?

A. Yes sir. We have got coke expense, the number of tons received, and the amount of money, and the coke expense on there in coke stock there, that means delivered at those prices.

Q. What is this "breeze" mean here, per ton?

A. That is the fine part of the coke. When you say 1250 lb.

of coke, you don't get that amount; you get about 10% that is breeze or fine dust.

Q. Is that included in the 1250 lbs.?

A. Yes sir.

Q. You have the amount of coke sold and used 4663 tons, 100 but you do not see to have any item separately of the coke sold, have you?

A. Sold and used together, yes sir.

Q. And does the breeze sell for the same, or do you charge it up for the same as coke?

A. No sir, breeze is credited up at \$1.00 per ton; it is worthless, there is no market for that.

Q. The total cost of your coke and breeze combined you have figured at \$28,103.00, an average of \$5.56 per ton; is that the amount that you have taken from the cost of manufacturing the gas?

A. \$5.56 per ton?

Q. Yes sir.

A. No sir. Breeze at \$1.00 a ton and coke at \$5.00 a ton.

Q. What does this mean here, that it cost you \$5.56 on an average per ton, coke and breeze?

A. There is some handling in that, you know.

Q. Well, this amount, this \$28,103.00 has been deducted, has it, from the cost of the manufacture of the coke?

A. Whatever the amount of the tons was at \$5.00 a ton has been deducted from our manufacture.

Q. And the breeze at \$1.00 a ton.

A. Yes sir; and tar at 2 cts. a gallon.

Witness excused for the present.

It being now one o'clock, the further taking of testimony was adjourned until 2:30 P. M. same day, September 24, 1907.

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2:30 P. M., September 24, 1907.

Parties met, pursuant to adjournment, and the following proceedings were had and done:

HOMER HONEYWELL recalls and cross-examination resumed.

Examined by Mr. STEWART on behalf of defendants:

Q. What other residuals are there?

A. That is all, Mr. Stewart,—Oh, we do get coke and tar, we do get some carbon out of the retorts, but we credit that back to the manufacturing whenever we sell it; there is no market for it, and we just pile it up in the yards; that is, a small quantity of it.

Q. What did you say was the reason you didn't make the water gas as long as it was cheaper than the other?

A. That is not always so. We make part coal and part water gas in order to take advantage of any market on materials, and then in order to make our own coke, in order to run our water gas set with. And in order to keep up to our calorific value in better style.

Q. Couldn't you buy your coke and still manufacture water gas much cheaper than what it is costing you now?

A. Manufacture water gas cheaper?

Q. Yes sir, than what the mixed gas is costing you now?

A. I don't think we could.

Q. How much more would you have to pay for your coke than it is costing you now?

A. I don't know the price of coke: I would guess \$1.50 to \$1.85 more a ton, possibly more than that at times.

Q. That is, ordinarily coke would cost you \$7.00 here.

A. Somewhere in that neighborhood: we would have to get it from some plant further east towards the coal regions.

102 Q. In laying your mains, you do not lay them in paved streets, that is, are you required to keep ahead of the paving?

A. Yes sir, we are required to keep ahead of the paving.

Q. That is a city ordinance on that subject?

A. Yes sir.

Q. Have you ever laid any mains in paved streets at all?

A. Oh, yes sir, we have taken up mains in paved streets.

Q. And put them back?

A. Yes sir.

Q. But I mean, laid them originally.

A. I do not recall any at the present time.

Q. I notice in the report here you specify the different kinds of coal you used, and you speak of using Kansas coal; what kind of coal is that?

A. That is a coal that comes from Kansas, a run of mine that we use; we use it for bench fuel; we might possibly have made some gas out of it, it is prohibited though; we cannot do it on account of the sulphur in it.

Q. This leakage of gas, how do you ascertain the amount of it?

A. Well, "leakage" probably is not a good word; it is gas lost and unaccounted for. We would read our consumer's meter and read our station meter to know what the Company has used and used by consumers and the difference is what is lost and unaccounted for. Part of that is leakage and part would be from condensation, which would be some, and that would take in slow meters and thefts of gas by consumers or people so it is not all leakage. Now, your leakage ought not to be a percentage, that is a percentage of your make, that is not a good way to put it. It ought to be a leakage per mile of main, which should be reduced to some basis. For
103 instance, in the city of St. Joseph that has got as many miles of main as we have, I think about the exact number, it probably puts out two or two and one half times more gas, their percentage would not be the same as ours would, and the percentage basis really doesn't signify anything there. They may put out twice as much gas, but they wouldn't have, in percentage, twice as much leakage as we would have.

Q. So that this 20% of loss is gas that is unaccounted for?

A. It is unaccounted for. It doesn't say leakage there.

Q. Now, what is the process by which you get a check on that.

A. By reading our station meters and our consumer's meters.

Q. Where do you keep a record of the reading of your station meter?

A. The engineer in the engineer's office has to take that, it is read at a certain time every day, seven o'clock in the morning, and those daily sendouts are added up.

Q. And then it is reported into the office here?

A. Yes sir.

Q. Do you have those original books?

A. Yes sir.

Q. You can produce those all right?

A. Yes sir.

Q. These reports, exhibits C and D that have been offered in evidence, are compilations from the Company's books, are they?

A. Yes sir.

Q. Made by different employees?

A. Yes sir, there is more than one person has a hand in it.

Q. So that you nor no other one person has sufficient knowledge of the compilations that you know it is exactly correct?

A. No one person did the whole thing. It could be done
104 by one person, but for convenience, it is not.

Q. Did you testify as to the value of the plant? Were you questioned on that?

Mr. ROSE: No, he wasn't questioned on that on this hearing.

Q. Your testimony to the effect that you could not operate the plant and pay a profit on its value if rates were reduced to \$1.00 a thousand is a conclusion that you arrive at from studying this compilation, is it?

A. From studying the results of our plant, yes sir.

Q. As shown by the reports.

A. Yes sir, as shown by the reports.

Q. In regard to the division of expense between the gas and electric departments, is that shown here in this report?

A. The total expense shown there? No sir. That does show the expense that we apportion to the gas department.

Q. And this does not show what proportion of the general expense of the Company has been apportioned to the gas department?

A. No sir; it doesn't show it is two-thirds, no sir.

Q. I notice here on page 20 something in the steam account, going to the electrical department.

A. We buy the steam for the gas department from the electrical department, we have only one steam plant.

Q. Then you give the electrical department credit for that?

A. Yes sir, for what we bought from them.

Q. At what rate.

A. I cannot tell you what rate. The figure was arrived at by running one of the boilers, keeping track of the fuel and the water by running one of the boilers for a stated length of time, the boiler

we have to run to supply the gas department; that was gotten from actual practice.

Q. Isn't there some of your plant used by the electric
105 and the gas department jointly?

A. We have only one boiler house down there, all the boilers are in the one house, and there is a blacksmith shop down there, and a barn.

Q. Then this steam that you generate for the gas department and the electric department come from the same boilers.

A. Yes sir; but we arrived at the amount by taking one boiler separately. We pay the electric department for steam the same as though we bought it from the traction Company or someone else.

Q. Well, as long as the gas Company is the main or larger department, why don't you sell it to the electric Company?

A. Because we have to have more steam than the electric department.

Q. The gas department is a bigger consumer of steam than the electric department.

A. Yes sir.

Q. I think you testified that there was no ordinance regulating your charges for electricity.

A. None that I know of.

Q. So that there is no object in apportioning less of the expense to that department than should properly go there?

A. No sir, but there is an object in apportioning these objects the way they should be.

Q. What is that?

A. We compare our reports with reports of other companies scattered around and we are naturally anxious to show just as good a report that we manufacture stuff just as cheaply as any of the rest of them, and we run them as though they were two separate concerns as much as we can. If the electric departments takes something from the gas department, they pay for it.

106 Q. And it is not your purpose to load anything on to the gas department that does not properly belong there as a part of the proper expense?

A. Absolutely not.

Redirect examination.

Examined by Mr. ROSE on behalf of the Complainant:

Q. This system of reports was not devised for the purpose of this investigation?

A. No sir; it was a system gotten up by a committee from the different companies, they spent lots of time and lots of money getting up what they thought was an ideal report so the expenses can be analyzed. If you are high on one thing your Auditor knows about it, and you get a call.

Q. Now are there reports made by your Company, by the gas department of your company, at any shorter intervals than periods of a year?

A. Yes sir.

Q. How frequently?

A. Monthly reports.

Q. And are they made at the expiration of each month?

A. Yes sir.

Q. And how long has that system been in vogue?

A. We started that I think about 1900 or 1901.

Q. Do you have any interest in giving credit to your securities to make the best showing you can to prospective investors as to your earnings at this plant?

A. Yes sir.

Q. Now you may state whether or not these reports are taken from the books, and from the monthly reports as they were made from time to time as the business itself was transacted?

107 A. That is the way they were gotten up, from the monthly reports and from the general books of the company.

Q. Would they have been in the same form if this law suit or controversy had never arisen?

A. Absolutely.

Q. Now will you produce for the solicitor of the defendants the original records from which these reports are taken?

A. Yes sir.

Q. They are here at his disposal when he calls for them?

A. Yes sir.

Q. And the other records or items that the solicitor called for you will endeavor to make up?

A. Yes sir.

Q. Including the schedules of the moneys invested in the permanent works of the company?

A. I want to explain, and I meant to this morning, it will be no easy job, and it will not be a job that can be completed in a hurry.

By Mr. STEWART:

Q. What is that?

A. These schedules you asked for this morning.

Q. Now what is the fact as to whether your item of \$603,000.00 invested in the plant covered any investment necessary for supplies on hand, and what has been termed "working capital"?

A. No sir, it did not.

Q. From your experience in the business you may state what if any necessity there is for keeping those supplies, and what in your opinion the needs of the company require by way of investment in the working capital of this gas plant here in Lincoln?

A. Well, you have to have money enough to run your business for a period of longer than a month,—considerably longer.
108 possibly 45 days,—45 to 60 days, because nobody pays cash for gas, they all take the thirty days before they commence to pay for it. You have to keep a stock of stuff on hand, and a big stock of coal on hand on account of the distance from the market, and the frequent labor troubles and labor strikes, and you must

keep pipe and meters on hand, and you must keep oil on hand, you must keep a stock of oxide on hand,—pretty near everything you use. You cannot run right up to the handle.

Q. Now I believe you said the income from the gas department last year, that is the gross income, was \$200,000.00?

A. Approximately, yes sir; in round numbers.

Q. That would be a little less than \$20,000, a month?

A. Yes sir, of revenue.

Q. And you have to manufacture and deliver the entire month's output before you get any return for it?

A. Yes sir.

Q. You have to have a stock on hand to run you for a period beyond that?

A. Yes sir.

Q. What is the discount day?

A. The 6th, of the month following that in which the gas was used.

Q. So at the rate you charge for gas you would have approximately invested in gas manufactured and delivered before you get any return, \$20,000.?

A. Some where in that neighborhood, yes sir.

Q. Do you have to have bills, and things of that kind?

A. Yes sir.

Q. And money in the bank to run you during the month?

109 A. You have got to pay bills, and pay your pay rolls twice a month,—we pay pay rolls twice a month.

Q. Are supply bills, and things of that kind coming in constantly?

A. Yes sir.

Q. Can you get along without a balance on hand in cash?

A. No sir.

Q. Can you maintain your credit without some balance in the bank?

A. No sir.

Q. And can you get bank accommodations without you keep some balance ordinarily?

A. No sir.

Q. If you do it is with difficulty, and with good collateral?

A. Yes sir.

Q. Now on the question of depreciation; how long will a coal bench last you?

A. You mean the entire bench?

Q. No sir, the filling?

A. Well, we have charged out a certain amount, tried to charge it out in three years, but that is too long, they will not last three years.

Q. How long will they last on an average, by actual experience?

A. You probably could run from 24 to 30 months, but your bench would be in pretty poor shape in that time.

Q. There would be 40% or 50% depreciation on that particular class of property?

A. Yes sir.

Q. Now you were asked if you had taken out any mains. Have you taken out any mains for any purpose of cause in recent years?

A. Yes sir.

Q. And what has been the cause that led you to do that?

A. Chiefly the smallness of the mains; increasing the size
110 in order to increase service and give better service.

Q. Is it practically or mechanically possible in establishing works of this character to anticipate what the future demand may be upon the particular main?

A. No sir.

Q. What is the fact as to whether the residence districts, or the districts that are closely built up in this city, have changed in the last few years in any respect?

A. They have been building on the back ends of lots to a considerable extent, and it has gone further out; the residence portion of the town has changed, the desirable residence portion.

Q. Now as an experienced gas man what would you say as to whether that was any fault in the original design of construction?

A. It couldn't be, nobody could have told, or could tell, where the residence section or business section was going to land.

Q. Now from your experience you may state whether or not contingencies of that kind must necessarily arise in a plant of this kind and develop in a growing city?

A. They must arise, and they must be met as they arise; you cannot anticipate them. For instance the Fitzgerald tract is another evidence of that thing.

Q. What is the condition there that you illustrate this proposition with?

A. Well, we have a service in there to Mrs. Fitzgerald that ran clear up the street, clear up from "B" street I think. Now then, they have cut that, and we have got to run a big main, four inch main, or two inch mains, along each of those streets in order to provide for the houses that are being built there.

111 Q. And how does that load your mains that reach to your station further down town?

A. It changes them, you have to lead out a little bit further, or in a little bit different direction, with larger mains.

Q. What, if any, necessity of a change in your plant nearer your station would the development of a new residence district, like the Fitzgerald tract, have, or make?

A. Well, you would have to carry more pressure, and have a bigger holder,—not one in particular, but a number of them, and it would load up your main, your lead, from there.

Q. And what is requisite to relieve an unusual load from a small main that way?

A. Put in a larger one.

Q. To displace the other one?

A. Yes sir, take the other one up and put in a large main.

Q. I will go back to the leakage now. Where does the gas leak?

A. At the joints, and through holes in pipe that have been eaten by the action of some chemical in the earth.

Q. And what other agency destroys pipes?

A. Besides electrolosis there are some salts in the earth does it.

Q. Now in so far as the leakage was concerned would the quantity of leakage under the same pressure be increased by multiplying services in the line, or meters along the line?

A. Yes sir.

Q. How materially would it be increased?

A. Oh, it wouldn't double up, it would leak more. Your leakage would depend more on the—

Q. If I understood you rightly you answered you were required to go ahead of the pavement in laying services?

A. Yes sir.

112 Q. Now what use do you make of those services until the lot is improved by a building?

A. Absolutely none, except to make a little leakage there.

Q. Now in a paved street what is the fact as to whether you have a service to each lot?

A. In the paved streets the law requires us to lay a service inside of the curb to every fifty foot before the paving is laid.

Q. Now you may state whether or not in the case of improvements by the alley that provision has obviated the necessity of again lifting the pavement?

A. You mean where they build on the alley?

Q. Yes sir?

A. No sir, we have to take up the pavement where we can get in. where the guaranty is out, and run a main down the street.

Q. Now in your answer to the City Attorney did you mean to infer that you are without the privilege of cutting the pavement and putting in services where it is required?

A. I think we are some places until after the guaranty is out.

Q. What provision is made for your putting in services under the pavements, what is the method by which you accomplish that?

A. If there is pavement there?

Q. Yes sir?

A. Go over and pay a dollar and get a permit to open up the pavement and run a trench along there and tap the main and put the pavement back as good as we can. If it is asphalt we have to get the contractors to pave that and pay for it.

Q. So in the case of these services to vacant lots what is the fact as to whether you have to anticipate a public improvement and public demand for that particular public service?

113 A. Yes sir, we do; and have to anticipate it if there is not a house there for ten years, we have to have the service there.

". And figuring replacement value would any new company be required to open the pavement if they were required to put down new works now?

Mr. STEWART: The defendants object as incompetent, immaterial, irrelevant and calling for the conclusion of the witness.

A. My impression is they would not be compelled to dig up pavement and dig a service into the lot, they would only put services into houses where they had actual consumers.

Q. Take for instance where there are only 90 meters, or under 90 meters on an average, as in Lincoln, to a mile of mains, would the per cent of loss from the item of leakage alone be as great, or greater, than it would where the number of meters per mile of mains ran to 200?

A. It would be greater where there were 90 meters.

Q. A greater per cent?

A. Yes sir; in per cent.

Q. Explain why that would be?

A. Well, I tried to do that before; the more gas you send through the same mains your percentage would not hold good. If we sent double the amount of gas through our mains our per cent of leakage would not be double what it is now.

Q. Would it increase the number of joints from which the gas could leak out of the mains?

A. If you had 200 meters on to the mile?

Q. Yes sir, if you multiplied the number of meters along the mains, adding them to the services already made, would it increase the number of joints from which the gas would leak?

114 A. No sir.

Q. Then what is the fact as to whether the number of joints govern, in a sense, the leakage from the mains?

A. I mentioned the number of joints in the mains.

Q. You were asked to explain why you used the coal gas set here as well as the water gas, and in that connection I wish to inquire whether the demand upon your plant here now equals, or nearly equals, the full capacity of the water gas?

A. We could not make all water gas with the set we have.

Q. Now to increase your capacity in your water gas set what would be required?

A. You would have to build another building, and make new connections with the holder and new connections with the steam and boiler.

Q. You would have to increase the capital upon which you could claim a revenue?

A. Yes sir.

Q. How is it about increasing indefinitely the capacity of your coal set?

A. You cannot increase that indefinitely, no sir. We have a house built there, we would have to build on another house to increase that.

Q. Each increase you had how do you construct it, by a single bench, or how?

A. No sir, probably in threes, in sets of three benches of sixes, sets of threes.

Q. What are your by-products here?

A. Coke and tar.

Q. Do you have any ammonia?

A. No sir, we have no way of saving that.

Q. I asked you if you had any product of ammonia?

115 A. No sir.

Q. What ammonia you have you do not save, is that what you mean, is that correct?

A. Yes sir.

Q. Now the price of \$7.00 that you receive for coke you may state what that includes?

A. That includes advertising, soliciting, delivery and handling.

Q. In your tar product do you use any of that product in the electric department?

A. We burn it under our boilers.

Q. And how is that compensated for to the gas department?

A. We pay the gas department two cents for every gallon we burn.

Q. Now in respect to the steam credited to the electric department you may state what the fact is as to whether the amount of the credit is estimated at the actual cost of manufacture and delivery of the steam?

A. Yes sir.

Q. Do you remember of being asked whether the cost of a replaced main was charged up in your tabulation to new construction?

A. Yes sir.

Q. Was it?

A. The difference between the main taken up and the new main was charged to new construction.

Q. The difference only?

A. The difference only.

Q. Did that leave still employed the capital contributed for the displaced main?

A. Yes sir.

Witness excused.

116 HOMER HONEYWELL, re-called:

Examined by Mr. ROSE on behalf of complainant.

Q. Did you get the certificate of the City Clerk of Lincoln and the County Clerk of Lancaster County showing the assessed valuations of the company's properties for the year 1907?

A. Yes sir.

Q. And what is the total amount in dollars and cents of the County and State taxes payable at the office of the County Treasurer under that certificate by this company for the year 1907?

Mr. STEWART: The defendants object as incompetent, immaterial, irrelevant and not the best evidence, and no foundation laid.

A. \$5,256.75.

Q. And state in the same manner what is the amount of the taxes levied against this company and payable at the office of the City Treasurer of Lincoln for the year 1907?

A. \$6,672.53.

Q. What per cent of the total taxes levied by the City of Lincoln

for the year 1907 is levied against the properties of the complainant company?

A. 2.17 per cent, or a little over one-fiftieth.

Q. In the certified statement by the City Treasurer I notice that there are included three lots assessed to Halleck F. Rose in Block 77, being parts of lots 11 and 12, or perhaps two of them are fractional parts of lots 11 in block 77, can you explain why those are included?

A. Yes sir.

Q. Do so?

A. They were lots that were originally bought for the gas company's use and in order not to have them covered by that
117 blanket mortgage they put them in the name of Halleck F. Rose.

Q. Who paid the consideration for the purchase?

A. The gas company.

Q. Do you know whether they hold the unrecorded deed of Halleck F. Rose?

A. We do, and collect the rents for the property.

Q. Was that bought for the uses of the gas company?

A. Yes sir.

Q. What sum do you estimate would be imposed by way of an occupation tax on the company for the year 1907 if two and one-half per cent of the gross receipts tax is imposed?

A. Well, if we sold 200,000,000 cubic feet of gas at \$1.20 that tax would amount to \$6,000. a year.

Q. What do you estimate you might sell? That is more than you have ever sold?

A. Yes sir, that is more than we have ever sold, considerably more.

Q. What is the highest?

A. About 163,000,000 or 167,000,000.

Q. Suppose you increased that about 14,000,000 that would make 175,000,000?

A. Yes sir.

Q. Then it is an easy matter to compute that?

A. That would be \$5,250.00.

Q. What does that make the total tax levy against this company now for the year 1907 by the City of Lincoln and Lancaster County?

A. About \$17,179.28.

Mr. ROSE: The complainant offers in evidence Exhibit "F" being the realty tax for the year 1907 by the City of Lincoln
118 against the Lincoln Gas & Electric Light Company; also Exhibit "G," being the realty and personal tax for the year 1907 by the County of Lancaster and State of Nebraska against the Lincoln Gas & Electric Light Company.

Mr. STEWART: The defendants object as incompetent, immaterial irrelevant and not the best evidence.

Exhibits "F" and "G" found at pages 147 and 148.

Q. Are the properties of the complainant company assessed in the city of Lincoln for municipal purposes at their full ad valorem value?

A. They are supposed to be assessed at their full value.

Q. Then in extending the taxes and multiplying by the millage of levy they are divided by one-fifth as all other property is?

A. Yes sir.

Q. So that these valuations here are one-fifth of the actual reported values of the company?

A. That is correct.

Q. Have the city taxing authorities included any sum for the value of the franchise, if so what sum?

MR. STEWART: The defendants object as not the best evidence.

A. Yes sir, \$60,000. I think are the figures.

Q. Now taking into account the general valuations of all of the property in the city of Lincoln would you say that the estimate certified here by the City and County Clerks represents the full proportion of the properties within the taxing districts that are actually owned by the Lincoln Gas & Electric Light Company?

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COPY OF EXHIBIT "E."

Gas Construction.

1873	54247.32
1874	887.31
1875	
1876	10117.44
1877	3371.55
1878	1656.06
1879	2976.56
1880	1004.21
1881	1318.42
1882	11160.80
1883	1177.98
1884	3233.36
1885	7609.33
1886	15163.34
1887	12390.47
1888	24261.65
1889	9650.72
1890	43301.28
1891	48429.26
1892	71284.59
1893	17345.41
1894	6534.89
1895	9081.63
1896	5327.06
1897	6810.45
1898	6427.28
1899	11480.62
1900	22538.31

1901	53343.85	
1902	55424.53	
1903	23664.67	
1904	20359.09	
1905	20916.24	
1906	14632.32	
	6150.14	Six months to June 30, 1907.
	<hr/> 603278.14	

120 Mr. STEWART: The defendants object as indefinite, unintelligible, and calls for a conclusion.

A. I think it is high.

Q. You have lived all your life here in Lincoln have you?

A. Yes sir.

Q. And somewhat acquainted with the industries and enterprises here in Lincoln?

A. Yes sir.

Q. You may state whether or not in your opinion the actual total value of \$38,977,700, being five times the amount specified in the certificate here offered from the City Clerk of the total assessed valuation of the property within the city of Lincoln, represents the actual value of all of the taxable property within the taxing district?

Mr. STEWART: The defendants object as immaterial and no proper foundation laid.

A. No, I do not; it is low.

Q. How much low?

Mr. STEWART: The defendants object as immaterial and no foundation laid.

A. Oh, we ought to have \$50,000,000 worth of stuff.

Q. \$50,000,000 worth of taxable property you mean by that?

A. Yes sir.

Q. Do you think there is any doubt but what there is \$50,000,000 of taxable property within the taxing district of the City of Lincoln?

Mr. STEWART: The defendants object as immaterial and no foundation laid.

A. No sir, I do not.

Q. Did you ever hold the office of Secretary or Assistant Secretary of the Lincoln Gas & Electric Light Company?

121 A. Yes sir.

Q. As such did you then hold the record books of the company in your hands?

A. Yes sir.

Q. Are the record books of this company, and the companies which it succeeded, in the office of the company, that is in your charge?

A. Yes sir.

Q. I produce here a record book; is that the original record book

containing the proceedings and minutes of the meetings of stockholders and Board of Directors of the Lincoln Gas Company?

A. Yes sir.

Q. Calling your attention to the entries upon page #162 containing the minutes of the meeting of the stockholders on July 9, 1900, are you acquainted with that handwriting?

A. Yes sir.

Q. In whose handwriting is it?

A. J. K. Honeywell.

Q. In whose handwriting is the signature to the minutes of the meeting appearing on page #163?

A. J. K. Honeywell.

Q. Was you then an employ  of the company?

A. Yes sir.

Q. Was Mr. Honeywell at that time the Secretary?

A. Yes sir.

Q. And this book was then kept by him?

A. Yes sir.

122 Q. Calling your attention to the entry of the minutes of a meeting of the Board of Directors of the Lincoln Gas Company appearing on page #164 of the same book, are you acquainted with the handwriting of that entry?

A. Yes sir.

Q. In whose handwriting is it?

A. J. K. Honeywell's.

Q. In whose handwriting is the signature to that?

A. J. K. Honeywell's.

Q. Was he at that time Secretary of the Lincoln Gas Company?

A. Yes sir.

Q. Calling your attention to the entry of the minutes of the Board of Directors' meeting at page #166 of the same book, whose handwriting is that in?

A. J. K. Honeywell's.

Q. And whose handwriting is the signature to the entry?

A. J. K. Honeywell's.

Q. Was he then Secretary.

A. Yes sir.

Q. Now this book is in your custody and subject to the inspection of the solicitor for the defendants is it?

A. Yes sir.

Mr. ROSE: We ask to read into the record the entry or portions of the entries pertinent here, and give notice that we desire to use the copy given here as a part of the evidence of this witness, or produce the original books at the hearing. The portions we offer are the following:

Mr. STEWART: The defendants object as incompetent, immaterial and irrelevant.

JULY 9, 1900.

123 *Minutes of the Meeting of the Stockholders of the Lincoln Gas Company, Held July 9, 1900, at the Office of the Company, in the City of Lincoln.*

Meeting called to order by the President, D. E. Thompson * * *

Resolved, That the Directors and officers of this company be, and they hereby are, directed to sell the property, rights and franchise of this company to the Lincoln Gas & Electric Company, and to execute and deliver to it such deeds and instruments as may be necessary to effect said transfer. The motion was duly seconded, and upon being put was unanimously adopted."

The portion above read being from page #162.

From page #164 I offer the following from the minutes of the Board of Directors' meeting.

"Mr. Tomlinson read to the meeting the resolution passed by the stockholders at their meeting held this day directing the sale of the property, rights and franchises of this company to the Lincoln Gas & Electric Company, and offered the following resolution and moved its adoption.

Resolved, That the directors and officers of this company as directed by the stockholders, sell the property, rights and franchises of this company to the Lincoln Gas & Electric Company, and that they cause to be prepared and execute and deliver such deeds and instruments as under the advice of counsel may be necessary to effect such transfer. The motion was duly seconded, and the resolution unanimously passed."

124 I also offer from the record of the meeting of the Board of Directors of July 12, 1900, the following:

"Mr. Thompson reported that pursuant to resolution passed at the meeting of the stockholders and directors of this company, its property, rights and franchises have been sold to the Lincoln Gas & Electric Company, and that they have received the consideration therefor."

Q. Were you an employee of the Lincoln Gas & Electric Company mentioned in the minutes that have been just read?

A. Yes sir.

Q. Did you hold any office in that company?

A. I was Assistant Secretary and Treasurer.

Q. Have you now in your custody in your office under the immediate charge of the present Secretary the minute book of the meetings of that company?

A. Yes sir.

Q. Is the book that I now hand you that original book containing original entries?

A. Yes sir.

Mr. ROSE: The complainant offers from page "2" the following entry:

"Meeting of subscribers to the capital stock of the Lincoln Gas &

Electric Company. * * * It was on motion duly made and seconded.

Resolved, That the entire capital stock of this company, to-wit: Fifteen Thousand (15,000) shares of the par value of \$100.00 each, be issued to the Lincoln Gas Company in consideration of, and in part payment for the transfer to this company of the property, rights and franchises of the Lincoln Gas Company."

125 Mr. ROSE: The complainant also offers from the record of the minutes of the proceedings of the Board of Directors held July 9, 1900, as contained on page 12 of said record, the following: "It was on motion duly made and seconded,

Resolved, That this Company purchase from the Lincoln Gas Company its property, rights, and franchise, and that the officers of the company be directed to issue upon the receipt of valid deeds an instrument transferring to this company the property, rights and franchises of the said Lincoln Gas Company to the parties procuring such transfer, and in consideration thereof, and in part payment thereof, the entire capital stock of this company."

Q. Now have you present the book containing the record of the minutes of the proceedings of the stockholders and board of directors of the complainant company, the Lincoln Gas & Electric Light Company?

A. Yes sir.

Q. Have you produced the book here?

A. Yes sir, that is the book. (Exhibit "H.")

Q. Are you acquainted with the signature of the Secretary on page "5" of the record of the proceedings of the first meeting of the stockholders held December 17, 1901?

A. Yes sir.

Q. Whose signature is it?

A. A. Lincoln Eglinton, as Secretary, and Louis E. Wettling, as Chairman.

Mr. ROSE: The complainant offers so much of the record contained in this book marked Exhibit "H" as contains the
126 record of the passage of the preamble and resolutions for the purchase of the properties of the Lincoln Gas & Electric Company, as follows:

The following was introduced:

Whereas, This company has been incorporated for the purpose of engaging, and with power to engage in the gas and electric business in the city of Lincoln, Nebraska, and vicinity, all as set out in Article 3 of the Articles of Incorporation, and

Whereas, In order to accomplish the purposes for which it has been incorporated it will be necessary for the company to acquire gas and electric plants, and distributing systems and franchises for the operation of the same, and

Whereas, The Lincoln Gas & Electric Company a corporation organized under the laws of the State of Nebraska is the owner of valuable gas and electric plants, and distributing systems in the city of Lincoln, together with the right of franchise to operate the same under an ordinance of the Mayor and Councilmen of the city of

Lincoln, approved March 12, 1872, as amended by an ordinance approved June 19, 1890, and as further amended by an ordinance approved May 2, 1900, and under various other ordinances of the Mayor and City Council of the city of Lincoln, all of which property, rights, and franchises are suitable for the business to engage in which this company was incorporated, and

Whereas, It has been ascertained that the same can be purchased by the company for the consideration and upon the terms and conditions hereinafter set forth,

127 Now Therefore Resolved, That this company purchase from the Lincoln Gas & Electric Company all that company's property, rights, privileges and franchises of every name and nature at and for a consideration equal to Two Million Two Hundred and Forty Nine Thousand One Hundred (\$2,249,100.00) Dollars, plus all the existing just debts and liabilities of the Lincoln Gas & Electric Company for the said sum of Two Million Two Hundred and Forty Nine Thousand One Hundred (\$2,249,100.00) Dollars, to be paid in this company's full paid nonassessable capital stock at par, and the balance of said consideration to be paid by the company assuming and agreeing to pay as and when they shall respectively mature and become due all the existing just debts and liabilities of the Lincoln Gas & Electric Company. The transfer to be made as of date December 1, 1901.

Resolved Further, That the Board of Directors of this company, and the proper officers of this company when elected, be and they hereby are fully authorized and empowered and directed upon receipt of the proper conveyances to this company of the property, rights, privileges and franchises aforesaid, to issue and deliver to the Lincoln Gas & Electric Company, or to such persons as it may direct, certificates for Two Million Two Hundred and Forty Nine Thousand One Hundred (\$2,249,100.00) Dollars, fully paid, non-assessable capital stock of this company, and generally to perform such
128 acts, and to execute such instruments in behalf of, and in the name of this company as may be necessary, proper or convenient to fully carry out and complete on the part of this company the purchase aforesaid, and

Whereas, This company when it has assumed and agreed to pay all the debts and liabilities of the Lincoln Gas & Electric Company as aforesaid will be under the necessity of making proper and adequate provisions therefor, and it is expedient and proper that this company should at this time provide for immediate extensions to, and improvements upon the properties which it will acquire as aforesaid, and also to provide for future extensions thereto, and improvements thereon.

Therefore Resolved Further, That the Board of Directors of this Company be, and they hereby are fully authorized and empowered and directed to cause to be executed a mortgage upon all of the said property, rights, privileges and franchises when acquired, such mortgage, and the bonds to be issued thereunder and secured thereby to be in the form and of tenor and effect set out in the copy submitted to this meeting, and on file in the office of the company in record

files as Document No. 3, identified by the signature of the Secretary of this meeting thereon indorsed; and further, that the Board of Directors be generally authorized to do or cause to be done whatever may be necessary and proper to fully authorize the execution, and delivery of such mortgage and bonds as aforesaid.

129 It being expressly stipulated that in purchasing the property, rights, privileges and franchises of the Lincoln Gas & Electric Company this company agrees to become liable for any claim that one J. C. Van Riper may have against the Lincoln Gas & Electric Company in case he shall hereafter succeed in establishing the same.

The question being upon the adoption of the foregoing preambles and resolutions a ballot was had, and the same were duly and unanimously adopted."

Mr. ROSE: The complainant offers so much of the record of the minutes of the proceedings of the Board of Directors of the same company, of date December 19, 1901, as refers to the subject matter of the purchase of the Lincoln Gas & Electric Company, as follows:

"The following was introduced, referring to the action had at the first meeting of the stockholders of this company, held December 17, 1901, respecting the purchase by this company of all of the property, rights, privileges and franchises of the Lincoln Gas & Electric Company for the consideration, and upon the terms and conditions set forth in the minutes of said meeting of the stockholders, reference to which is hereby made.

Resolved, That the President or Vice President and the Secretary, or the Assistant Secretary, of this company when elected be and they hereby are authorized and empowered and directed upon receipt of proper deeds and conveyances to this company of all of the property, rights, privileges and franchises of the Lincoln Gas & Electric Company, to execute, issue and deliver to the Lincoln Gas & Electric Company certificates for this company's fully paid, non-assessable capital stock, and such other undertakings and instruments in the name and on behalf of this company as may be necessary, proper and convenient to fully complete and effect on the part of this company the purchase of the property, rights, privileges and franchises of the Lincoln Gas & Electric Company for the consideration and upon the terms and conditions set out in the minutes of said meeting of the stockholders.

The question being upon the adoption of the foregoing resolution the same was unanimously adopted."

The minute book of the Lincoln Gas & Electric Company is marked Exhibit "J."

The minute book of the Lincoln Gas Company is marked Exhibit "K."

Mr. ROSE: The complainant offers in evidence from page 26 of Exhibit "J" so much of the proceedings of the stockholders at their meeting held on December 18, 1901, as refers to the subject matter of the same transfer, as follows:

(See page—next page.)

Mr. ROSE: The complainant offers so much of page 35 of same book, as contains the action of the Board of Directors of the Lincoln Gas & Electric Company upon the same question.

(See page—next page.)

131 The following was introduced:

Whereas, the Lincoln Gas & Electric Light Company has been incorporated for the purpose of engaging and with power to engage in the gas and electric business in the City of Lincoln, Nebraska, and vicinity, as will appear by the articles of Incorporation of said Company on file in the offices of the Secretary of State of Nebraska, and the County Clerk of Lancaster County, Nebraska, and

Whereas, in order to accomplish the purposes for which it has been incorporated it will be necessary for the Lincoln Gas & Electric Light Company to acquire Gas and Electric Plants and distributing systems and franchises for the operation of the same, and

Whereas, this Company is the owner of gas and electric plants and distributing systems in the City of Lincoln, together with the right and franchise to operate the same under an ordinance of the Mayor and Councilmen of the City of Lincoln, approved March 12th 1872, as amended by an ordinance approved June 19th 1900, and under various other ordinances all of which property, rights, privileges and other franchises are suitable for the business, to engage in which the Lincoln Gas & Electric Light Company was incorporated, and

Whereas, it has been ascertained that the Lincoln Gas & Electric Light Company will purchase from this Company, the property, rights, privileges, and franchises aforesaid for the consideration and upon the terms and conditions hereinafter set forth:

Now, Therefore, Resolved that this Company sell to the Lincoln Gas & Electric Light Company all this Company's property, rights, privileges and franchises of every name and nature, at and for a consideration equal to Two million, two hundred and forty nine thousand, one hundred dollars (\$2,249,100.), plus all this Company's existing just debts and liabilities, the said sum of Two million, two hundred and forty-nine thousand, one hundred dollars (\$2,249,100.) to be paid in full paid non-assessable Capital Stock of the Lincoln Gas & Electric Light Company at par, and the balance of said consideration to be paid by the Lincoln Gas &

132 Electric Company's assuming and agreeing to pay as and when they shall respectively mature, and become due all the existing, just debts, and liabilities of this Company, the transfer to be made as of December 1st 1901.

Resolved, further that the Board of Directors of this Company and the proper officers of this Company be and they hereby are, fully authorized and empowered and directed to cause to be prepared and to execute, in the name of this Company, proper deeds and other conveyances of the property, rights, privileges and franchises aforesaid, and to deliver the same to the Lincoln Gas & Electric Light Company upon receipt of certificates for Two million, two hundred and forty-nine thousand, one hundred dollars (\$2,249,-

100.) at par of full-paid and non-assessable Capital Stock of the Lincoln Gas & Electric Light Company or upon receiving satisfactory assurance that such certificates will be issued and delivered so soon as the same can be prepared, and generally to perform such acts and to execute such instruments on behalf and in the name of this Company as may be necessary, proper, or convenient to fully carry out and complete on the part of this Company the sale aforesaid.

It being expressly stipulated that as part of the consideration for the sale and conveyance of the property, rights, privileges, and franchises aforesaid, the Lincoln Gas & Electric Light Company shall assume and agree to become liable for any claim which one, J. C. Van Riper, may have against this Company, in case he shall hereafter succeed in establishing the same.

Resolved, further that the Board of Directors and proper officers of this Company be, and they hereby are, fully authorized and empowered and directed, upon receipt of certificates for the amount of Capital Stock of the Lincoln Gas & Electric Light Company aforesaid, to transfer and distribute the same to the Stockholders of this Company pro rata.

133 Resolved, further that when such distribution to the Stockholders shall have been made this Company be then and thereupon dissolved in accordance with Section 134, Chapter 16, Compiled Statutes of Nebraska, 1901, and that the Stockholders present and voting at this meeting comprising more than two-thirds of all the members and stockholders of this Company, do hereby consent to such dissolution, and that the Board of Directors and proper officers of this Company be, and they hereby are, fully authorized and empowered and directed to perform all such acts and proceedings in the name and on behalf of this Company, and to execute all such instruments as may be necessary or proper to fully accomplish and effect such dissolution.

The question being upon the adoption of the foregoing Preamble and Resolutions, a ballot was had which resulted as follows:

Number of shares of stock voted in favor of the adoption of the adoption of the Preambles and Resolutions 6749, Contra. None.

Thereupon the entire outstanding Capital Stock of the Company, excepting one share, has been voted in favor of the adoption of the foregoing Preambles and Resolutions, the Chairman declared that the same were fully adopted.

134 The following was introduced:

Referring to the action had at the Special Meeting of the Stockholders held this day respecting the sale and conveyance of all this Company's property, rights, privileges and franchises to the Lincoln Gas & Electric Light Company, and the dissolution of this Company, (Reference to the Minutes of said Special Meeting of the Stockholders being hereby made.)

Resolved, that the President and Assistant Secretary of this Company be, and they hereby are, authorized and directed to do and perform such acts, and to execute, acknowledge and deliver such deeds and conveyances in the name of, and in behalf of this Com-

pany as may be necessary, proper, or convenient to fully complete and carry into effect the sale and conveyance of this Company's property, rights, privileges, and franchises to the Lincoln Gas & Electric Light Company, for the consideration and upon the terms and condition set out in the said Resolutions of the Stockholders.

The question being upon the adoption of the foregoing Preamble and Resolution, the same were Unanimously adopted.

135 Q. Now in December, 1901, what was the outstanding indebtedness of the Lincoln Gas & Electric Company that was transferred?

A. I don't remember.

Q. Do you remember whether the underlying bonds of \$333,000.00 was then outstanding?

A. Yes sir, they were then outstanding.

Q. Do you remember what the total bond issue was at that time, approximately?

A. No sir; but I think it was \$655,000.00 of other bonds out.

Q. Making a total of \$1,000,000.00?

A. Approximately, yes sir.

Q. Now how many of those bond issues are still outstanding,—that is the issues that were then out?

A. The \$333,000.00 bond issue is still outstanding, and I think the other bonds were taken up by the Lincoln Gas & Electric Light Company's bonds.

Recross-examination.

Examined by Mr. STEWART on behalf of the defendants:

Q. In this transfer from the Lincoln Gas & Electric Company to the Lincoln Gas & Electric Light Company the consideration was simply the issuance of stock, as I understand it from these records?

A. I do not know the details of that.

Q. There wasn't any cash paid so far as you know?

A. I didn't have anything to do with the practical turning over of the company, or sale of the company.

Q. And you do not know of any cash having been paid in the transaction?

A. Yes sir, I do know of some cash being paid in. I know there was something like \$77,000. or \$100,000.,—from \$77,000.
136 up to \$100,000. that was actually paid in here by the bond holders.

Q. Under what arrangement? You don't know?

A. No sir, I don't know. I have heard, it is only hearsay, and that was that they paid in \$300.00 more to keep a thousand dollar bond; but they got practically \$100,000.00 out of it.

Q. Was the new bonds issued at that time upon which this cash was paid in?

A. I don't know the details of that.

Q. In the sale from the Lincoln Gas Company to the Lincoln Gas

& Electric Company do you know whether there was any money transaction connected with that transfer?

A. Yes sir.

Q. Proceedings there indicate that the stock of the company, of the Lincoln Gas & Electric Company was issued to the Lincoln Gas Company to pay it for its property and franchises, is that the way you understand it?

A. The stockholders of the Lincoln Gas Company were paid off in money, and the Lincoln Gas & Electric Company assumed the mortgage of \$333,000.00.

Q. There is nothing in these proceedings that have been read that indicate that is there?

A. I don't remember, I didn't follow that closely; but that was the case.

Q. And do you know where this money came from that went to the stockholders of the Lincoln Gas Company?

A. Wood & Havenmeyer paid it.

Q. Does that appear on your books?

A. I don't know how that was handled.

By Mr. ROSE:

Q. Now, isn't it a fact that the money paid was paid by
137 Wood & Havenmeyer to acquire the stock of the Lincoln Gas Company?

A. That is they bought the stock.

By Mr. ROSE:

Q. So the consideration paid was to the stockholders and not to the company?

A. Yes sir.

By Mr. ROSE:

Q. Then in the reorganization and transfer to the new company the old company, which was then owned by Wood & Havenmeyer, or practically owned by them, took all of the stock of the new company in consideration of the transfer of its properties?

A. Yes sir; paying themselves off practically.

By Mr. ROSE:

Q. So there was really no cash that went to the Lincoln Gas Company?

A. No sir; it went to the stockholders.

Q. That didn't come from the new company but it came from Wood & Havenmeyer?

A. Yes sir.

Q. Now these reports, Exhibits "C" and "D", neither of them have any accounts of additions to your capital does it, or additions to your plants?

A. They have additions to the plant, that would be construction account, additions to the works.

Q. Show me where that is will you?

A. I don't know as I can either, Mr. Stewart; it is not in this one. (Referring to Exhibit D.)

Q. Nor in Exhibit "C" either?

A. No sir.

Q. Is there anything in either one of those reports as to the amount expended for maintenance?

A. Yes sir. (Referring to Exhibit D.)

138 Q. Now turn to that will you?

A. Well, there is the repair account here, and service maintenance, and street maintenance and meter maintenance.

Q. That is on page "13", the amount expended for street main maintenance and meter maintenance is it?

A. Yes sir; and service maintenance also.

Q. And service maintenance?

A. Yes sir.

Q. What other maintenance expenses have you there than those three, connected with your business?

A. Oh, buildings; you would have to repair your buildings and your apparatus. They are called "repairs" rather than "maintenance" here.

Q. Is that included in this statement on page 13?

A. No sir, that is included in the manufacturing report for the different departments; repairs on water gas generating apparatus, repairs on water gas house, etc.

Q. What do these items of maintenance cover?

A. Keeping the mains and services up to a certain extent. If we find a leak in a service we get out and repair it, or maintain it.

Q. If you have to take up a pipe and put in a new one it would include costs of that kind?

A. Yes sir, "maintenance" would include that.

Q. And the same with your apparatus, and your buildings, anything that gets out of order or out of repair and if you have to fix it up it is a repair account?

A. Yes sir.

Q. Now where you have to take a machine out and replace it with a new one what account do you keep, if any?

A. Why, I don't know as we have had to take any machines out.

139 Q. Oh, yes, here are some that you said had to be changed every 24 or 30 months?

A. Oh, that is bench repairs, those are not machines, they are benches. You have to fill them out, you save your iron work—possibly some of the iron work is worn out, but you take those out and fill them up; that is bench repairs.

Q. Where do you keep that account?

A. In the contingent bench repair account.

Q. Would it be here if you had an item of that kind?

A. No sir, in the general books, in just bench repairs.

Q. It wouldn't enter into the operating expenses at all would it?

A. Yes sir, it does there in bench repairs, but charged over a period that you estimate your benches will last.

Q. That is you make an arbitrary charge?

A. Well, it was arbitrary when we thought they would last three years, yes sir; they will not last that long.

Q. But if you do actually make a change where do you put that account?

A. Put it in the contingent bench account, and from that charge up monthly bench repairs.

Q. Out of the operating expense account? Ought it not to show on this account?

A. Yes sir; it does show there what the bench repairs were.

Q. Where you take out a machine, for instance this old machine that has been talked about here, what system is it? The Springer set? Now suppose you discard that and get a new one?

A. We will charge the new one to construction, and we will credit plant with whatever we can get out of the Springer set.

Q. You haven't then anything in the nature of a replacement account in your books?

140 A. No sir.

Q. When do you say the first mains were laid?

A. The first mains were laid in Lincoln in 1872, I think.

Q. Are some of those mains still in use?

A. No sir, not that I know of. No sir, they are not because they were wooden mains.

Q. Those were taken out about when?

A. I don't think they were ever taken out. I think they were just allowed to rot in the ground.

Q. When were your first iron mains put in?

A. Oh, that is beyond my time.

Q. About when?

A. I don't know.

Q. That is further back than you can remember?

A. Yes sir.

Q. And how long has the present plant and machinery been installed?

A. I will start with the coal gas apparatus, that was built first; the new coal gas benches were built in 1890 or 1891. I cannot tell you how many times those arches have been rebuilt, or how many times those benches were refilled, but we rebuilt the arches and refilled them this last year.

Q. Now what do you charge that to?

A. Bench repairs, contingent bench repairs, and spread it over a period that we estimate these benches will last.

Q. And it went into the operating expenses?

A. Yes sir. The three south benches were built by Van Riper in 1901, I think; they were refilled again in 1904.

Q. I just wanted to know when you started them?

A. I say they were refilled again in 1904.

Q. When were they originally put in?

141 A. In 1901; and we are now practically rebuilding those benches. And then the water gas set they run down there now, the Ft. Wayne set, was bought by Powers in 1901; that, of

course, has been relined and repairs made on it right along; and the meter we have got down there we put in in 1890 or 1891, along there some place. That has been repaired a couple of times, there is nothing but the shell left of the original meter. The holder was built in 1890 and 1891, and we have got to have a new holder now, it is in bad shape.

Q. What do you mean by the "holder"?

A. The gas tank, the 205,000 foot gas holder. And the boxes I think were put in in 1890 or 1891 when we were rebuilding down there, and another one put in there, if I remember rightly, in 1901. The coal gas exhauster was put in in 1891, we changed engines on that a couple of times, and of course kept up the repairs on it. There was a coal gas meter we had down there in 1890 or 1891 that has been repaired a number of times, and fixed over here last year, in 1906.

Q. And that was charged to what?

A. Repairs.

Q. Did I understand you this new plant was constructed when you moved the location of your plant in 1890 or 1891?

A. Yes sir, 1890 and 1891.

Q. And most of the equipment you have now went in there then?

A. Yes sir; not all of it, some scrubbers I think did not.

Q. When did they go in?

A. Why, I am under the impression they were built by Powers in 1901 or 1902.

Q. Do you know anything about what the life of a cast iron main is? You are not old enough to tell are you?

A. Yes sir, I think I am. Some of it possibly lasts very
142 long, and some of it does not, it depends on the ground it is in, and the conditions.

Q. Do you know what the average life of a cast iron main is?

A. No sir.

Q. Or a wrought iron main?

A. No sir; it depends on conditions.

Q. Some you have to take up and put in new pieces quite frequently, is that true?

A. Well, yes sir, you would under certain conditions.

Q. I am asking you about yours?

A. No sir, I do not recall any places where we have to take it up frequently.

Redirect examination.

Examined by Mr. ROSE on behalf of complainant:

Q. You spoke of having borrowed some money on stock options at 6% in 1904, I believe it was?

A. Yes sir.

Q. Did you have any other security aside from the stock option pledged?

A. Oh, yes sir.

Q. What did you have pledged besides the stock options?

A. I think it was the same amount of bonds, I do not think it was double the amount, I think it was the same amount of bonds,—
—No, I will take that back because I remember now that we put up \$1,000 in bonds for every \$500.00 note, and we have the same \$200,000 of bonds up now.

Q. You put up double the amount of bonds?

A. Yes sir.

Q. And also an option to purchase shares of stock at the rate of \$10.00 per share?

143 A. Yes sir.

Q. What was the par value of those shares?

A. \$100.00.

Q. Now who furnished the stock to meet that option?

— I don't know.

Q. Don't you know that after the stock was issued that a large portion of it was surrendered to the holding committee for the uses of the company?

A. I understood the holding committee had that stock; I don't know that absolutely.

Q. Now when did these notes mature?

A. They matured the 1st. of June, 1906.

Q. The 1st. of June, or 1st. of February?

A. It was along in there some place; it might have been the 1st. of February.

Q. Now was the company obliged to pay those notes, or any one of them?

A. No sir.

Q. Were the notes surrendered?

A. Yes sir.

Q. And instead of the company paying out the money for that \$100,000.00 what was given in place of the notes?

A. The stock; \$100,000. worth of stock.

Q. Now what did the company realize for that stock?

A. \$100,000.

Q. Was that \$100,000. added to the assets or capital of the company?

A. No sir.

Q. Why wasn't it?

A. There was no account made of that, but they put it into the company.

144 Q. That is what I say, did you realize on those notes \$100,000?

A. The proceeds of the \$100,000. went into this company.

Q. And were the assets of the company increased by \$100,000. on account of the transaction?

A. Yes sir.

Q. And did the company ever pay out anything except its capital stock for it?

A. No sir.

Q. Now have you in your estimate of values here included that \$100,000.?

A. No sir.

Q. I mean in the estimate of the moneys expended in permanent construction?

A. No sir.

Q. Do you know whether any of it went into the electric department?

A. No sir, the whole \$100,000. went together. That statement is the statement of the construction the way I was able to take it out from the old books and the new books. The new books I know are absolutely right, but the old books, we had different book keepers and a different system of book keeping; that was long before my time.

Q. Do you remember whether your working capital was intact at that time, or whether you had suffered bills to run a little?

A. Oh, our bills were way behind.

Q. How many thousand dollars?

A. I would hate to tell you, but it was about \$40,000., taxes and all.

Q. And for a time prior to that had you been able to maintain your plant, and meet the interest on your bonded indebtedness?

A. No sir.

145 Q. And was it that emergency that required that contribution of \$100,000. from the stockholders?

A. Yes sir. We were in dire distress for money, and we couldn't borrow it.

Recross-examination:

Examined by Mr. STEWART on behalf of defendants:

Q. You are compelled to spend a good deal of money every year for extensions?

A. Yes sir.

Q. That is something you take care of even if your bills have to run behind?

A. We try to, but not always.

Q. So while you were in dire distress for cash you were adding to the value of your plant all the time by building extensions?

A. Yes sir. There were some extensions going on at that time. You can see when we cut down on that by that table there, when we got hard up.

Q. You do not want to be understood in your testimony as stating that there has been any more gone into the construction account of the gas department than you have shown here?

A. That statement is the construction account the way I was able to get it off of the books for those years. I do want to be understood that we got \$100,000. of money outside that somebody delivered stock for; there was \$100,000. paid into this company.

Q. You do not want to say that was paid out for construction in addition to what you have already shown here, do you?

A. No sir.

Re-direct examination.

146 Examined by Mr. ROSE on behalf of complainant:

Q. Are you prepared to show now that the figures that you have given here include all that the company has expended in the equipment of its plant?

A. No sir, I may be in error on these old things there, they were different book keepers and had a different system of keeping books; I wouldn't say that was absolutely sure.

Q. Will you say now you have found all that there was expended?

A. No sir; to my best knowledge and believe that was all I could find, I may have missed some.

Witness excused for the present.

It being now five o'clock P. M. an adjournment was taken until tomorrow morning, Wednesday, September 25, 1907, at 10 o'clock A. M.

147

COPY OF EXHIBIT "F."

City of Lincoln, Nebraska.

Page 25, Book 1.

Realty Tax List for the Year 1907.

			Total Valuation.	39½ mills.
Lin. Gas & Elec. Light Co. Lot	1, B. 79	\$1400	\$54.95	
"	2	1800	70.65	
"	3	1800	70.65	
"	4	1800	70.65	
"	5	1800	70.65	
"	6	1800	70.65	
"	7	500	19.63	
"	8	500	19.63	
"	9	30	1.18	
"	10	30	1.18	
"	11	30	1.18	
"	12	40	1.57	

Page 24, Book 1:

Halleck F. Rose.....	11	77	10	.40 S. 92 ft.
"	11		15	E. ½.
"	12		145	.59 W. ¾.
				5.69 S. 92 ft.

Page 25, Book 1:

Lin. Gas. & Elec. Light Co.	3	83	240	9.42
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Personal Tax List for the Year 1907.

City of Lincoln, Nebraska.

Page 253:

Lincoln Gas & Elec. Light Co..... Val. \$158,060 Am't \$6,203.86

Page 256:

Total assessed value of all property in the City of

Lincoln ... \$7,795,540.00

STATE OF NEBRASKA,
Lancaster County, ss:

I, Thos. H. Pratt, City Clerk of the City of Lincoln, County and State aforesaid, do hereby certify that the foregoing is a true and correct copy of the taxes on real and personal property owned by the Lincoln Gas & Electric Light Co. together with the total assessed valuation of the City of Lincoln, as shown by the records and files of my said office.

Witness my hand and official seal this 24th day of Sept. A. D. 1907.

[SEAL.]

THOS. H. PRATT,
City Clerk.

148

COPY OF EXHIBIT "G."

W. L. Dawson,
County Clerk.D. A. Frye,
H. E. Wells,
Deputies.

Office of County Clerk, Lancaster County, Lincoln, Nebraska.

STATE OF NEBRASKA,
Lancaster County, ss:

I, W. L. Dawson, County Clerk in and for said County and State, do hereby certify that the taxes for the year 1907 on the personal property of the Lincoln Gas & Electric Light Co., is \$4,873.15, and on the following pieces and parcels of land, to-wit:

Lot.	Block.	Tax.
3.....	79	\$367.20
So. 92 ft. 12.....	83	9.01
So. 92 ft. E. $\frac{1}{2}$ 11.....	77	5.04
All west $\frac{1}{2}$ 11.....	77	.36
		1.99

In testimony whereof I have hereunto set my hand and affixed the seal of said county this 24th day of September, 1907.

[SEAL.]

W. L. DAWSON,
County Clerk.

149 Wednesday, September 25th, 1907, 10 A. M.—Case proceeded pursuant to adjournment of yesterday with the same appearances as of yesterday.

Mr. Homer Honeywell, resumed the stand for further cross-examination by Mr. Stewart:

Mr. ROSE: The complainant produces a deed of conveyance from the Lincoln Gas & Electric Company proved by the official certificate of acknowledgment of Emma J. Hedges, Notary Public, and gives notice that at the hearing we will offer in evidence the original, but now ask to have a copy substituted in the record.

Mr. Stewart objects as immaterial and irrelevant. (Deed identified as exhibit "L") and is as follows:

150

Ex. "L."

803. *Warranty Deed—Corporation.*

State Journal Co., Lincoln, Neb.

This Indenture, Made this 19th day of December, in the year of our Lord One Thousand Nine Hundred and One, between The Lincoln Gas and Electric Company, a corporation organized and existing under and by virtue of the laws of the State of Nebraska, party of the first part, and Lincoln Gas & Electric Light Company, also a corporation organized and existing under and by virtue of the State of Nebraska [of the County of — and State of —,]* party of the second part,

Witnesseth, That the said party of the first part, for and in consideration of the sum of Thirty thousand 00/100 Dollars, in hand paid, and other valuable considerations, receipt whereof is hereby acknowledged, has sold and by these presents does grant, convey, and confirm unto the said party of the second part, the following described premises, situated in the County of Lancaster and the State of Nebraska, to-wit:

All of Block seventy-nine (79) in the City of Lincoln, and all of Lot three (3) in Block eighty three (83) in said City, together with all the appurtenances thereto belonging; Subject, however, to all existing liens thereon, [together with all the appurtenances thereto belonging.

And the said — — for itself and its successors, does hereby covenant to and with the said part- of the second part and — heirs and assigns, that at the time of the execution and delivery of these presents it is lawfully seized of said premises; that it has good right and lawful authority to convey the same; that they are free from incumbrance -- and does hereby covenant to warrant and defend the said premises against the lawful claims of all persons whomsoever.]*

In Witness Whereof, The said The Lincoln Gas and Electric Company has hereunto caused its corporate seal to be affixed and these

[* Words enclosed in brackets erased in copy.]

presents to be signed by its President the day and year first above written.

[SEAL.]

THE LINCOLN GAS AND ELECTRIC
COMPANY,
By HENRY L. DOHERTY, *President*.

Signed, Sealed, and Delivered in the Presence of

W. F. DOUTHIRT,
H. LINCOLN CLINTON,
W. F. DOUTHIRT.

151 STATE OF NEBRASKA,
Lancaster County, ss:

On this 19th day of December, 1901 before me, Emma J. Hedges, a Notary Public duly commissioned and qualified for and residing in said County, personally appeared Henry L. Doherty, President of The Lincoln Gas and Electric Company a corporation, to me known to be the identical person described in and whose name is affixed to the foregoing instrument as President of said corporation, and acknowledged said instrument to be his voluntary act and deed, and the voluntary act and deed of said corporation.

Witness my hand and seal at Lincoln in said County, the day and year last above written.

[SEAL.]

EMMA J. HEDGES,
Notary Public.

Internal Revenue Stamps Amounting to \$13.75.

Real Estate. (803.) (Have This Deed Recorded.)

Corporation.

[*Warranty*]* *Deed*.

From The Lincoln Gas and Electric Company to Lincoln Gas & Electric Light Company.

THE STATE OF NEBRASKA,
Lancaster County, ss:

Entered on Numerical Index and filed for record in the Register of Deeds' office of said County, the 25th day of March, 1902 at 10 o'clock and 40 minutes A. M., and recorded in Book 106 of Deeds on Page 578.

\$1.25 Pd.

J. D. MOORE,
Reg. of Deeds,
By T. E. WHEELER, *Deputy*.

J. N.

152 Mr. ROSE: We also produce a deed from the Lincoln Gas and Electric Company to the Lincoln Gas & Electric Light

Company, proved by the official certificate of acknowledgement of Emma J. Hedges, Notary Public and ask that a copy be included in the record, and now give notice that at the hearing we will offer the original in evidence.

Mr. STEWART: Objects as immaterial and irrelevant. (Deed identified as exhibit "M", and is as follows:)

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Ex. M.

803. *Warranty Deed—Corporation.*

State Journal Co., Lincoln, Neb.

This Indenture, Made this 19th day of December in the year of our Lord One Thousand Nine Hundred and One, between The Lincoln Gas and Electric Company a corporation organized and existing under and by virtue of the laws of the State of Nebraska, party of the first part, and Lincoln Gas & Electric Light Company, also a corporation organized and existing under and by virtue of the laws of the State of Nebraska [of the County of — and State of —,]* party of the second part,

Witnesseth, That the said party of the first part, for and in consideration of the sum of — Dollars, in hand paid, and other valuable considerations receipt whereof is hereby acknowledged, has sold and by these presents does grant, convey, and confirm unto the said party of the second part, [the following described premises, situated in the County of — and the State of —, to wit:]*

All of the party of the first part's property, rights, privileges and franchises of every kind and nature, (except real estate which is conveyed to the party of the second part by another deed bearing even date herewith), including the rights and franchises granted to The Lincoln Gas Company by an Ordinance of the Mayor and Councilmen of the City of Lincoln, approved March 12th 1872, as amended by an ordinance approved June 19th, 1890, and as further amended by an Ordinance approved May 2nd, 1900 and under various other ordinances of the Mayor and the Council of the City of Lincoln [together with all the appurtenances thereto belonging.

And the said — — for itself and its successors, does hereby covenant to and with the said part— of the second part and — heirs and assigns, that at the time of the execution and delivery of these presents it is lawfully seized of said premises; that it has good right and lawful authority to convey the same; that they are free from incumbrance — and does hereby covenant to warrant and defend the said premises against the lawful claims of all persons whomsoever.]*

In witness whereof, The said The Lincoln Gas and Electric Com-

[* Words enclosed in brackets erased in copy.]

pany has hereunto caused its corporate seal to be affixed and
 154 these presents to be signed by its President the day and year
 first above written.

THE LINCOLN GAS AND ELECTRIC
 COMPANY,

[SEAL.]

By HENRY L. DOHERTY, *President.*

W. F. DOUTHIRT.

H. LINCOLN CLINTON.

W. F. DOUTHIRT.

STATE OF NEBRASKA,

Lancaster County, ss:

On this 19th day of December, 1901 before me Emma J. Hedges, a notary public duly commissioned and qualified for and residing in said County, personally appeared Henry L. Doherty, President of The Lincoln Gas and Electric Company a corporation, to me known to be the identical person described in and whose name is affixed to the foregoing instrument as President of said corporation, and acknowledged said instrument to be his voluntary act and deed, and the voluntary act and deed of said corporation.

Witness my hand and notarial seal at Lincoln in said County, the day and year last above written.

EMMA J. HEDGES,
Notary Public.

All property other than Real Estate. (803) This Deed not to be recorded.)

Corporation.

[Warranty]* Deed from the Lincoln Gas and Electric Company to Lincoln Gas & Electric Light Company.

THE STATE OF NEBRASKA,

— *County, ss:*

Entered on Numerical index and filed for record in the Clerk's office of said County, the — day of — 19— at — o'clock and — minutes — M. and recorded in Book — of Deeds on Page —.

— — —,
County Clerk.
 — — —, *Deputy.*

(Do not record this, but carefully preserve it in the office of Lincoln Gas & Electric Light Company. 12/18/01. Lincoln, Neb. W. F. Douthirt.)

155 Mr. HONEYWELL resumed the stand for further cross examination.

Examined by Mr. STEWART:

Q. I think I have not asked you where the oil you used in the manufacture of gas came from?

A. I think now it comes from the Sugar Creek Refinery.

Q. Where is that?

A. In Kansas.

Q. What do you pay for it?

A. 4.2 cents per gallon F. O. B. cars Lincoln.

Q. Is that what you have been paying for it for sometime past?

A. No sir, the contract for the year before was 4.1 cents the price fluctuates according to whether they want to boost it or not.

Q. What kind of oil is that crude oil?

A. No sir, it is what they call gas oil.

Q. I think I asked you yesterday about the average life of an iron main and you testified that you didn't know; do you know what the life of a service pipe is, the average life?

A. I have no data of that Mr. Stewart, no sir I don't know.

Q. Well have you any cases where your service pipes here in Lincoln have given out as a whole and had to be replaced?

A. Why partially replaced yes, places where they would go through a certain street, or a certain strata of earth where they were put down and we find those given out frequently.

Q. What do you do?

A. Take them up and put down others in their place.

Q. Just to take the place of the decayed and rusted out places?

A. Yes sir.

Q. And you say you don't think you have had any occasion where you have had to replace service pipes entirely?

156 A. Probably not every foot, no sir.

Q. I think you testified that where you had a repair of that kind in the service pipe, or took out a section of the service pipe and replaced it that you charged that to the operating expenses?

A. To service maintenance and distribution expense.

Q. That is a part of the general operating expenses?

A. Yes, in the distribution department.

Q. In this inventory of your property that was made a part of Mr. Malone's testimony it refers to 3 recuperative benches of 6s complete with economizer, how long have those been installed in your plant?

A. I think we started those February 1907.

Q. Were those entirely new at that time or were they rebuilt?

A. There had been 3 benches before and we had to rebuild the benches and buy new iron work for them complete, everything except the foundation was new.

Q. You speak of 3½ depth benches without economizer, when were those installed, I mean originally?

A. The ones we are tearing out now or when the benches were first put there?

Q. I am speaking of those referred to in Mr. Malone's inventory.

A. They were filled in 1904.

Q. When were they originally installed?

A. I think in 1901 or 1902.

Q. Here is one #6 Roots coal gas exhauster and engine equipped with bristol recording guage, when was that installed?

A. I think that exhauster was installed in 1890 or 1891, the bristol guage was put in in 1904 or 1905.

Q. What is that?

A. That is to show the vacuum on the exhauster.

Q. That is attached to the exhauster?

A. Yes sir.

Q. One #3 P & A tar extractor with by-pass connections,
157 when was that installed?

A. I think when the plant was built in 1890 or 1891.

Q. One Tower scrubber—66 by 30 with 16" by-pass connections, when was that installed?

A. If I remember that was put in under Mr. Power's administration in 1902.

Q. One water tube condenser 54 by 25 with 16" by pass connections, when was that installed?

A. I think that was installed at the same time.

Q. One standard rotary scrubber and by pass connections, when was that installed?

A. That was put in in 1890 or 1891.

Q. One coal gas meter 5 by 5 with by-pass connections, when was that installed?

A. I think at the same time in 1890 or 1891.

Q. One set horizontal water coled condensers, when was that installed?

A. Probably at the same time in 1890 or 1891.

Q. One ammonia circulating pump and motor for same, when was that installed?

A. There has been an installation there recently, the one we have at the present time has been installed within the last year or 18 months.

Q. That is it is a new one?

A. Yes sir.

Q. One Roots economizer, blower and engine, piping system, guages etc., when was that installed?

A. That was installed in 1904.

Q. 132 feet Foul main from benches to purifyers, when was that installed?

A. That was in 1890 or 1891.

Q. Four 25 by 21 by 5 purifyers, center seal, carriages, connections etc., when was that installed?

158 A. I am under the impression that 3 of those boxes were put in in 1890 or 1891 and the other box was probably put in ten years later.

Q. One 10 by 10 McDonald station meter and Hinman drum with by-pass connections, when was that installed?

A. The meter was put in in 1890 or 1891 and was repaired several times, the Hinman drum was put in this year.

Q. What is that?

A. The inside workings of the meter.

Q. Do you know what the expense of it was, that you put in this year?

A. It cost about \$2500. I think.

Q. Where did that go in the construction or the maintenance account?

A. I am not prepared to answer that, I can't tell exactly where we did put that.

Q. This gas holder 205000 feet 2 lift gas holder when was that installed originally?

A. In 1890 or 1891, possibly it lapped over into both years.

Q. And that you say will need to be replaced?

A. Yes sir.

Q. That is on account of its size or because it is past repair?

A. That is on account of its age, we try to keep it in repair, but there may be a time when we will have to put it out of service.

Q. You don't know when you will do that?

A. As soon as we can raise the funds, we are trying to get the funds for a new holder now.

Q. I suppose the brick tank for same, this item of \$6300. was all done in 1890?

A. Yes sir.

Q. And one 20" Connolly street main governor and connections when was that installed originally?

A. In 1890 or 1891.

159 Q. One booster outfit and motor with connections when was that installed?

A. In 1904.

Q. Four 6000 gallon iron shell storage tanks for tar when were they installed?

A. There is a number of those, one was installed when the plant was built and the others as we needed them; I can't tell exactly the years they were installed.

Q. There is six of them altogether?

A. Yes sir.

Q. One gas Calorimeter when was that installed?

A. I think about 1905.

Q. One bar photometer when was that installed?

A. When the plant was built in 1890 or 1891. No, I will take that back, that was bought later about 1901 or 1902.

Q. Well this Western Gas Construction Company's water gas set complete with connections when was that installed?

A. In 1902 I think, in 1901 or 1902.

Q. And operating floor for above was that put in at the same time?

A. Yes sir.

Q. This 1-6 Springer water gas set, complete, that is the old one?

A. Yes that was put in when the plant was built.

Q. And that was when?

A. In 1890 or 1891.

Q. I was thinking you said you brought that over from the old plant?

A. No, since you refreshed my memory I think we had another set in there.

Q. It went back as far as 1890 or 1891 anyway?

A. Yes sir.

Q. This one #10 Buffalo forge blower including piping when was that put in?

160 A. In 1904.

Q. One 35 H. P. 1045 H. P. M. DC motor and auto starter when was that installed?

A. In 1904 or 1905.

— One 15 H. P. 1200 H. P. M. reserve blower and motor when was that installed?

A. I don't remember the exact date, possibly in 1903 or 1904.

Q. This took the place of others already installed?

A. We used to run that blower on the old set with steam we had a little steam engine, or had a steam engine to run that and then the method was changed.

Q. One 50000 cubic feet relief holder when was that installed?

A. That holder was installed in 1890, I don't know how much older it was, I think that holder we had over at the other plant and there was some work done on it when we put it up there.

Q. Is that in good condition?

A. Only fair.

Q. One brick tank for same when was that installed?

— That was put in in 1890 when the plant was installed.

Q. Foul main from gas machine to gas holder and from holder to purifiers when was that installed?

A. At the same time in 1890 or 1891.

Q. One 12500 gallon oil storage tank when was that installed?

A. In 1890 or 1891.

Q. And then one 10000 gallon oil storage tank when was that installed?

A. I don't remember whether those both were put in at the same time or not, I think they were though.

Q. Now here are some small items, such as oil pump, governor, heater, filter, and meter at a total of \$203.50 when were those installed?

A. The oil pump and new motor were put in in 1904 or 1905 they are of recent installation.

Q. Oil spray system and drilling apparatus when was that installed?

A. That was put in in 1904 I think.

161 Q. One tar separator circulating system, 2 pumps and pipe connections when was that installed?

A. That was put in in 1906.

Q. One 150 H. P. Boiler erected complete with stack when was that installed?

A. That is an estimate on what it would take to run our gas plant.

Q. Haven't you a boiler of that kind?

A. We haven't it in the plant, our boiler system is altogether.

Q. When were your boiler systems put in, I supposed you had them in all the time?

A. We change boilers and so forth right along, enlarge the, we put one in a month or so ago.

Q. When were your present buildings erected?

A. In 1890 or 1901 and then there was a part of a building put on, the building was extended for a scrubber and condenser I think in 1901.

Q. The principal buildings were constructed in 1890?

A. Yes sir.

Q. What is the material in those buildings?

A. Brick and stone.

Q. What kind of roofs have they?

A. Some have shingles and some have corrugated iron.

Q. Are the buildings in good condition now?

A. Fairly good, yes sir, with the exception of the coal house that isn't particularly good.

Q. Have you any way of preparing a detailed statement to show just how long your various lines of mains and service pipes have been in?

A. Why I expect so if given time enough. I don't know as you can go much back of 1901 though.

Q. I suppose a detailed statement such as I have asked you to make of this gas construction that exhibit "E" would substantially show that fact wouldn't it?

162 A. Yes sir, individual service you mean when it was put in, your house for instance or at 1428 O street or at 1428 N street?

Q. Yes, but more particularly the laying of the mains?

A. It would be hard to get a record beyond 1901 on account of the different systems of keeping it, that is one reason why we estimate it it is made up for instance of different systems of book-keeping during the different ownerships of the gas company.

Q. Where you put in a service to a house the way you keep your books now you show that on your books and charge it into what account?

A. We charge the construction with the amount we put into the service and credit construction back with the amount the consumer pays us; all we charge construction is the amount of money we actually put in from the main to the lot line.

Q. And then the consumer pays from the lot line into his house and for making the connection?

A. Yes sir.

Q. And that you charge back?

A. Yes sir.

Q. So it leaves on your books a net showing of what you have actually got into the construction?

A. Yes sir.

Q. Now where you install meters you furnish them do you?

A. Yes sir.

Q. The consumer don't have to pay for that?

A. No sir.

Q. How about connections with the gas ranges and so on?

A. We pipe to the new range the first time without cost, after that we charge the consumer for it.

Q. For what?

A. For moving it or connecting it up; if he has an old range we charge him for connecting it up.

Q. So you are a little more favorable to the consumer where he connects for fuel service than for light? You don't make 163 connections for light service without charging for it?

A. Oh yes, he has to pay for it though.

Q. He has to pay for it?

A. Well, he don't have to pay for setting the meter. They are supposed to drop their riser down to where the meter goes in and we make the connection without charge.

Q. He simply has to pay for the pipe in from the lot line to the place of connection?

A. That is right.

Q. For the actual making of the connection whatever that expense is you do that without charge?

A. Yes sir.

Q. Do your books show about what those connections for meters with ranges cost you?

A. Yes sir.

Q. Do you know about what they run?

A. I don't believe I do off hand, the setting of the meter costs us about a dollar.

Q. That means,—when you say setting, that means making the connection?

A. Yes, just to the service pipe or riser.

Q. But the range connections you can't give exactly?

A. I can't tell you exactly.

Q. About how much do they run?

A. They run in the neighborhood of \$3.

Q. Your books will show?

A. Yes sir.

Q. Now you keep about what amount of coal on hand?

A. We aim to keep not less than 2500 to 3000 tons, we probably have more than that on hand now; if we have 3000 tons we think we are pretty short, we aim to keep more than that on hand.

Q. Now these gas ranges that you supply your customers 164 with, do you, in your accounts credit up any profit you make on those to the earnings of the plant in figuring out the cost of the gas?

A. It is credited up to the expense of the range sales.

Q. Now I notice on page 15 of exhibit "D" under the head of "Analysis of special expense accounts," I see you foot up after allowing for profits on the sale of appliances, you foot up a balance of \$1,292.42 being the total cost of items from "A" to "G;" now under the head of "Executive Department, general expenses," on the same page under item number 1507 you have an item "Promoting new business" \$12,920.42; now is this last item intended to represent the footings under this "analysis of special accounts, new business etc."

A. Yes, they have made a mistake on that, they have left off one cipher; in our whole business taking all of it, advertising, salaries, cost of appliances, received for appliances etc., we charge the consumer so much and that goes to profit and loss which happens to give us a profit here; then for piping the connections we charge the consumer so much and credit that with the new business, promoting new business; you understand the total item of these expenses less the difference credited on other items on material or ranges would be \$8,893.29 less this \$1,106.33 plus this item of \$5,160 there is an error of a cipher there.

Q. It should have been \$12,920.42 instead of \$1,292.42?

A. Yes sir.

Question by Mr. ROSE:

Q. Is that an error in book-keeping or an error in transcribing?

A. It is a clerical error.

Q. Does that affect the general balances?

A. No sir.

Mr. STEWART, continuing:

Q. You testified yesterday about your inability to negotiate
165 a loan for the purpose of securing money for the company,
was that occasioned by the fact that money wasn't to be had
in the market or was it because your security wasn't considered
good?

A. That was caused by a constant pounding and turmoil that the company had been under here and this affected the market, when I started out to raise that money, I started in December 1906 and that was the first call, money was easy then, it wasn't only my efforts to float this loan but the efforts of a number of other people.

Q. What I want to know is whether it was on account of the lack of money to be had in the market that you couldn't get the loan or was it due to other causes?

A. It was due to other causes.

Q. I presume one of those causes that may have cut some figure would it not be the fact that you already had your plant mortgaged for practically all or more than it was worth?

A. I don't think that the amount of bonds we had out cut any figure.

Q. You think that if you had had no incumbrances on that property at all you still would have been unable to borrow the \$100,000?

A. Yes sir.

Q. That is with a plant worth somewhere from \$500,000 to \$1,000,000.

A. With the local conditions the way they were I don't think I could have borrowed it if we hadn't had the bonds on there.

Q. Of course, you don't know what you might have done under those conditions?

A. No sir, that is only surmise.

Q. Do you know, Mr. Honeywell, whether with your plant here, whether you are able to manufacture gas substantially as economically as they can at other points barring the cost of materials?

A. Our items of expense compare very favorably with other companies.

166 Q. What would you say if it would appear, for instance, in a city like Chicago that the cost of manufacturing gas was about 25¢ per thousand cubic feet, in what way would you account for that great difference in their manufacturing gas and yours?

A. We couldn't begin to compare with a town like that you don't want to lose sight of the difference in them, the number of consumers, the cheap price of material and then too they probably run their plant on a mechanical basis, they can afford to have mechanical stokers and charging machinery. And then the amount of their out-put.

Q. I understood you to say in your examination heretofore that the amount of the out-put affected only the cost of distribution and didn't affect the cost of manufacture?

A. No, I said the amount of your manufacture would make some difference with your cost.

Q. What difference per thousand cubic feet would a difference in price of \$1 per ton for coal make in the cost? Suppose you had to pay \$1 a tone more for coal how much more would your gas cost you per thousand?

A. Oh roughly estimating it, 10¢ per thousand.

Q. How much more would your gas cost you if the price of oil was \$1 more a gallon?

A. About \$3.90 more a thousand.

Q. You don't mean \$3.90.

A. Yes sir, you said if it was \$1 a gallon more how much more would it cost per thousand.

Q. I didn't mean that, I meant 1¢ a gallon?

A. It would cost us about 3.9 to 4 cents per thousand more.

Redirect examination by Mr. Rose:

Q. Mr. Honeywell on the question of reasonable depreciation, you take for example the item of boilers, do you have a fair
167 knowledge of what the average life of a steam boiler is that has to be operated at the pressure your plant requires?

— Why, I hardly want to answer that, I am not a steam boiler expert and I wouldn't be able to tell you the life of a boiler.

Q. This holder, the large one you say that has had repairs on it?

A. Yes sir,

Q. And you find that they have to be repaired to keep up their efficiency and avoid the extravagant waste by leakage?

A. Yes sir, we are doing some repairs right along, we find something today or tomorrow that has to be repaired.

Q. Would you say it required to be repaired every year?

A. Oh yes, you ought to scrape and paint your holder once a year.

Q. Notwithstanding that what is your judgment as to whether or not that holder has reached the life where it is really necessary to replace it out of the fund which you estimate for depreciation.

A. It practically has reached the life of that holder.

Q. You may explain what if any, modern appliances are in use to bring gas lighting up to the efficiency and comforts of electricity for lighting for domestic uses?

A. Well the mantels has done a great deal to bring that up, and the form of the inverted mantel principally makes it look more like electricity.

Q. What is your opinion whether or not at this time with these modern devices gas lighting in the modern homes of this city is as efficient and comfortable as electric lighting?

A. It is, a lot of people use it.

Q. Now you may explain a little more in detail the manner in which the competition of the Traction Company in the electric lighting business affects the patronage of the gas company even in the same tenements, what the conditions are?

Mr. Stewart objects as incompetent, immaterial and irrelevant.

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A. Well, a man who uses it for light and fuel we have to sell at the same price \$1.20 per thousand a flat rate; the other company is ambitious and they can send out their solicitors and make that fellow any rate they want to, in that case we have a made investment there with our revenue decreased, he has his house piped but he don't use our gas and we have lost a part of our revenue but still have our investment there.

Q. Are there any districts where the gas meters of the complainant are set in the same house that the electric meters of the Lincoln Traction Company are?

A. Oh, yes.

Q. Any considerable districts of that kind in the city?

A. Yes sir, out in the Southeast portion, and in the South portion and lately they have been going out in the Northeast portion of the city, and then too they are down around the business district.

Q. State what the fact is whether in the houses where that situation exists there are combination fixtures permitting of the use of either gas or electricity for lighting in those houses?

A. Yes sir, most of the good residences have combination fixtures.

Q. Does that occur frequently in your business?

A. Yes sir.

Q. In that case how would the choice of the one agency or the other for light be affected by the ability of one company or the other to make lower rates?

A. The company that would make the lowest rate would get the business, if you are compelled to keep a stationary rate you can't get it.

Q. In that case is the competing company using electricity bound by any arbitrary rates by ordinances of the city?

A. No sir.

169 Recross-examination by Mr. STEWART:

Q. You say that a holder ought to be scrapped and painted once a year?

A. Yes, I think that is about right.

Q. You do that with yours about that often?

A. I don't know as it has been done quite that often.

Q. When you do it do you charge it up to expense?

A. Yes sir.

Q. What kind of a holder is it what is it made of?

A. Iron and steel.

Q. Is that what they make them of the present day?

A. Yes sir.

Q. What is the trouble with it, how does it deteriorate?

A. Eaten out, it is exposed to the weather all the time.

Q. If it was kept painted it wouldn't eat out would it?

A. Yes, it is down in the water wet and then it is up in the dry, and then in the cup there there is a water seal and it fluctuates up and down wet part of the time and dry part of the time.

Witness excused.

Mr. HARRY WARNER, being produced on behalf of the complainant, was duly sworn and testified as follows:

Examined in chief by Mr. ROSE:

Q. What is your business?

A. I am connected with the Gas Company.

Q. In what capacity?

A. Secretary and Treasurer.

Q. That is of the complainant here, the Lincoln Gas & Electric Light Company?

A. Yes sir.

Q. How long have you been here?

170 A. Since the 24th of December, 1906, I have been in their employ.

Q. Less than a year?

A. Yes sir.

Q. What connection do you have with the accounting department?

A. Well, I practically have direct charge of the different departments.

Q. Of the book-keeping department?

A. Yes sir.

Q. Have any of these reports been made in whole or in part under your supervision that have been offered in evidence here?

A. Yes sir.

Q. What experience have you had as a book-keeper in operating under the system of book-keeping in vogue by this company?

A. Just since I have been with the company.

Q. Have you have any former experience in book-keeping?

A. Yes sir.

Q. What efforts were made to check over the correctness of these reports from the books of the company?

A. We tried to make everything correct.

Q. How are the entries made upon the books of the company under various administrations are they correct so as to show the character of the transactions and the history of the company?

A. To the best of my knowledge and belief they are.

Q. Are these reports here which I hand to you, exhibits "C" and "D" correct summaries of the transactions recorded therein?

A. To the best of my knowledge and belief they are absolutely correct.

Q. Did you assist in the collection of the data and make the classifications of the customers for the purpose of this hearing, this classification of customers as to the amounts of gas consumed?

171 A. I had very little to do with that.

Q. Who did that work generally?

A. Why the different men in the office and book-keeper took the information from their books.

Q. Whose direction was that done under?

A. I had them do it.

Q. What is your best information and knowledge as to the correctness of the classifications compiled in that way?

A. I should say it is correct.

Q. You were here when Mr. Honeywell produced the tabulations showing the classifications of the consumers were you?

A. Yes sir.

Q. And are familiar with the sheet he produced?

A. Well not so much so as he would be.

Q. You are familiar with it so you would know the book?

A. Yes sir.

Q. Were those classifications correct?

A. As far as I know they were.

Q. In copying off these first reports "C" and "D" did you prepare those right from the books direct?

A. Yes sir.

Q. How frequently do you make up reports exhibiting summaries in similar character and form as these?

A. Each month.

Q. And showing the business for what period of time?

A. For the month, and then we make a six months' report and a yearly report.

Q. Do these present reports that have been produced here represent the actual conditions of the company?

A. Yes sir.

Q. Were they made with any special reference to this law-suit?

A. No sir.

172 Q. Are they in the form they would have been barring any law-suit or controversy had never arisen?

A. Yes sir.

Cross-examination by Mr. STEWART:

Q. Referring to exhibit "C," I notice under line 1004 for coke residuary it appears it amounted to \$22566.96 was that the value of the coke residuum?

A. Coke and breeze.

Q. Where in this report is that credited?

A. (Indicating.) That is credited right here.

Q. I mean to reduce it to a manufacturing expense?

A. Right here (indicating) it is taken right out of here, the first three lines amount to \$48,000, in round numbers, and this (indicating) amounts to \$23,000, it is deducted and the net amount per ton on line 1009 leaves \$24,476.63 net cost of coal gas manufacturing material.

Q. Now on page 11 under line 1117 general supervision \$1857.98 is that the actual amount actually paid for supervision or is it the amount apportioned monthly?

A. That is the amount paid, that is what it cost.

Q. You haven't any detail of that item in this book have you?

A. No sir.

Q. Is that true of all the items there for plant expenses, that it was the actual amount of money paid out, or was it the amount you charged up each month to cover those items?

A. Why, it is supposed to be the actual expense.

Q. Well, you say supposed, but is it?

A. Yes sir.

Q. You don't have any system of keeping books by which you simply charge so much each month to a certain account averaging it through the year and estimating about what it will be, how is that?

173 A. I don't just get what you are getting at?

Q. Well, take the item of taxes, for instance, is that all charged up at one time or is it apportioned through the year?

A. Why you find out what they amounted to for the year and apportion it so much each month.

Q. Now how is it about supervision?

A. Well we know what that costs every month.

Q. That is intended to be a year's business so that is the actual cash expenditure?

A. Yes sir.

Q. You didn't make up this report yourself?

A. I made practically all of it, I didn't make that particular report, but I made a pencil report of which that is a copy.

Q. Did you make it from books of original entry yourself, or did you have your clerks furnish the data?

A. I got practically all of it myself.

Q. What is the reason you didn't show your oil account in this report?

A. There is no place for it if I remember right.

Q. And that is the reason you didn't put it in?

A. Yes sir.

Q. Can you make a report complete without having an oil account?

A. Oh, we show what we used there for the year.

Q. Do you show the total?

A. Yes sir.

Witness excused.

The noon hour having arrived a recess was taken until 2 P. M. this day, September 25th, 1907.

174 2 P. M. Wednesday, September 25th, 1907, hearing proceeded, with same appearances as of this morning.

Mr. HOMER HONEYWELL, who being previously duly sworn, was recalled for further examination in chief, testified as follows:

Examined by Mr. ROSE:

Q. Now Mr. Honeywell you may detail the rates collected for gas by the complainant beginning back, say with the year 1899 and for the last 8 years?

M. STEWART: Objects as irrelevant and immaterial.

A. In 1899 we had a rate in effect until the 1st of October, of \$1.80 net for illuminating gas and \$1.35 net for fuel gas, beginning with the 1st of October, 1899 we started to reduce our illuminating price 7½¢ per thousand until it got down to, — (Interrupted.)

Q. 7½¢ per thousand for what period?

A. Per year, until the light and fuel rate was the same, and in June or July, when Mr. Van Ripper came here he made a rate of \$1.75 gross for light, and \$1.50 gross for fuel gas with a discount of 25¢ per thousand cubic feet for prompt payment, that would make \$1.50 net for light and \$1.25 net for fuel gas, and that run along until in June 1904 when we reduced the price of lighting gas to \$1.50 per thousand gross and the price of fuel gas to \$1.50 per thousand gross with a discount of 30 cents for prompt payment which would make the light \$1.20 and the fuel \$1.20 net and we also agreed to remove one meter and supply the gas all through one meter.

Q. Wasn't there a period when both light and fuel was \$1.25?

A. Yes, that was during Mr. Van Ripper's time when the gross rate for light was \$1.75 and \$1.50 gross for fuel with 25¢ per
175 thousand discount for prompt payment that would make it \$1.50 for light and \$1.25 for fuel net.

Q. Wasn't there a time intervening when the price of fuel and

lighting gas was all metered by one meter at which time the net rate was \$1.25 for both?

A. No sir.

Cross-examination by Mr. STEWART:

Q. Now can you tell to what extent your per capita consumption has increased under this reduction of rates for these years?

A. It could be figured out, but I don't know now.

Q. It has very greatly increased hasn't it?

A. No sir, I wouldn't say that it had, not owing to the reduction in rates.

Q. Well, you don't know do you?

A. No sir, I don't know.

Q. Do you know what effect it has had on the earnings of the company?

A. I know what the last reduction had, yes.

Q. I am speaking generally?

A. It reduced the revenues.

Q. Your books would show that?

A. Yes sir.

Q. Your gross receipts have increased constantly haven't they?

A. Yes sir.

Q. But you are inclined to think that your net receipts have decreased?

A. Our gross receipts were increased on account of putting on more consumers.

Q. I understand, from whatever cause your gross receipts have increased right along notwithstanding the decrease in price?

A. I think it was less one year?

176 Q. When was that?

A. In 1904, the last reduction.

Q. What year showed a decrease over the preceding year?

A. 1905 would show a decrease under 1904.

Q. Have you any books of account that would show that so you can give it accurately?

A. Yes sir.

Q. I would be glad to have that; now what you mean to say is that your gross receipts decreased?

A. Yes sir.

Q. The charging of a higher price doesn't necessarily mean a greater earning does it? That is you can charge a price so high that it will actually decrease your net earnings?

A. You can charge a price so high that the consumers won't use it that is right.

Q. And that has been the case with a good many gas companies hasn't it?

A. I don't think it has been.

Q. You wouldn't say that it had not been?

A. No sir.

Q. Well, do you know?

A. I know of no place where the charge was so high that the people wouldn't use it, it was something else that caused it.

Q. The reduction in price has always had the effect of increasing the out-put and consumption hasn't it?

A. I wouldn't say that was true, if you didn't go after the business hard, if you went along as you had the year before you would get some natural increase anyhow, barring that natural increase you would reduce your revenue.

Q. I am speaking about reducing the price and increasing the consumption?

A. No sir.

Q. Do you state that as a practical gas man?

177 Q. Do you think that is so as an expert, you have grown up in the business here haven't you?

A. Yes sir.

Q. If you reduce the price without going for business, you think it wouldn't increase your revenue?

A. If you go after your business and put the same energy in it to get the business as you did the year previous to reducing the rates so that the amount of energy in both cases would be equal in the amount of consumption that is your effort and not the reduction in price that does it.

Q. That is your opinion?

A. Yes sir.

Q. Do you think you could find any other man experienced in the operation of gas plants that would agree with you on that?

A. Yes, I believe I could.

Q. Well now I will ask you to furnish me then for these years you have shown the range of prices a statement showing the range of the out-put and your gross and net earnings?

A. Yes sir.

MR. STEWART: I will end the cross-examination of Mr. Honeywell here for this time, but I will probably want to cross-examine him further on information I have asked him to produce heretofore.

Redirect examination by Mr. ROSE:

Q. In the face of a reduction of price affecting the percentum of profit which the company makes on its out-put what is the only means of the company to maintain its net revenue, is it to take on some more new business?

A. Yes sir, to hustle for new business.

Q. Can it overcome its net decrease of net revenue by any other means?

A. No sir.

178 Q. Is there any other possible way of overcoming this reduction in net revenues?

A. No sir.

Q. At the time this reduction *when* into effect what energies and expenses were incurred by the complainant in its endeavor to maintain its revenues in the face of the reduction?

A. In starting up a new business department.

Q. How many men did it employ and were they skilled or otherwise?

A. Along in 1901 we had 2 to 4 men; in 1904 we started out with a new business department with 6 solicitors with a head of that department and a clerk.

Q. What sort of canvassing did they do?

A. They made a house to house canvass to ascertain what the consumers had on the premises, what they used, why they didn't use something else and trying to get in additional equipment.

Q. How close did you get your statistics?

A. Every house in town.

Q. Did you keep a card or record of it?

A. Yes sir, it is divided into territory or districts and every man knows how many people that only use a range, or only use a light or both.

Q. Do you maintain a school-room and educate your solicitors and get reports from them daily?

A. Yes sir.

Q. Was there any considerable expense involved in that?

A. Yes sir.

Q. And in addition to that you have solicitors on commission?

A. Yes for a while, we pay them on a salary and commission basis now.

Q. What do you say as to whether this company has worked this territory here up to its present possibilities, or about it in the gas department?

A. Oh, we have done pretty well, we have gotten pretty well up to what you can do with the method of charging in vogue now or that we have to follow.

Q. What other field of patronage is there left to you that you haven't been able to reach.

A. The great industrial field.

Q. Why can't you reach that?

A. On account of our flat rate meter charges.

Recross-examination by Mr. STEWART:

Q. That is you mean that if you could be allowed to reduce the price to each consumer you could get a great deal of patronage that you can't get now on the present system?

A. On a rational method yes sir, if you could reduce these charges on a rational method.

Q. What do you mean by that?

A. Confining yourself to your expenses for different classes of consumers and not just arbitrarily taking a flat sum per thousand feet.

Q. If you could do your business on that method could you put in force and make a fair profit a system of rates that would average you \$1. per thousand feet?

A. No, I think to start off we would average considerably more than \$1.

Q. You think you would have to have it average more than \$1.

A. Yes, to start with until the business was worked up.

Q. The present rate you are charging is a voluntary rate?

A. Yes sir.

Q. And there is no ordinance requiring you to charge a flat rate?

A. No sir.

Q. I mean no ordinance other than the one being enjoined in this suit?

A. That is correct, none other than the dollar gas ordinance.

180 Q. Prior to the passage of this ordinance that the complainant has enjoined in this suit there wasn't any ordinance?

A. There was an ordinance of 1899, that was the first ordinance.

Q. What did that ordinance allow you to charge?

A. That allowed us to charge \$1.35 net for fuel and a sliding scale on the light until both got the same.

Q. And then the company has voluntarily reduced that rate to \$1.20 for both fuel and light?

A. Yes sir, we have kept under the ordinance all the time.

Q. You have voluntarily charged a less rate than the ordinance permitted you to charge?

A. Yes sir.

Q. And you made good any losses in your revenues consequent on reducing your rate by pushing vigorously for more business?

A. For a while we didn't make good the loss but we pushed the business until now it is growing.

Q. And ultimately made good the loss, that is you got business enough to make it to your advantage to make it at a low rate?

A. To make up for the difference in loss in dollars and cents on account of the cut.

Q. This system you have of pushing your business is an up to date system is it not? and one that well managed companies ought to enforce isn't it, if they want to make the best out of their business?

A. Yes sir, and the progressive companies do.

Q. And it holds true that the greater the volume of business and the less rate you are required to charge to maintain your net earnings.

A. That would depend on something else besides the volume of business you know.

Q. Well, everything else being equal I mean?

A. Yes that is true.

Q. And that is the reason why you push for more business?

A. Yes sir.

181 Q. And because of that larger volume of business handled the greater your earnings will be and the more money you hope to make?

A. Yes sir.

Q. And if you decreased your charge, say 10¢ per thousand feet and on account of that reduction and on account of the vigorous pushing for new business you could very materially increase your output and might make more money on the lower rate than you would on the higher rate?

A. If you reduce your rate 10¢ you just make your unprofitable

consumers that much more unprofitable, it is not enough to bring any business that you can't get now, and your unprofitable fellows are just 10¢ more unprofitable and it will move that scale down to another class of consumers to *into* an unprofitable class.

Q. You don't understand my question, I asked whether if you made a reduction of 10¢ or 15¢ on any given amount, if you increased your business enough after that so as to make up the loss in revenues from the reduction, through an increase in your business provided you got enough of an increase?

A. You could if you got enough, the question is where are you going to get enough?

Mr. ROSE: Just another question or two.

Q. Is it possible under the dollar rate to make up the shrinkage in the loss?

A. No it is out of the question.

Q. What is your opinion as manager of this plant whether there would be any way of maintaining your revenues up to the standard, to maintain your plant, at one dollar in this city today?

A. No sir, that reduction would give just one-sixth on all unprofitable consumers and would make them just one-sixth more unprofitable, you take one-sixth away from the profitable consumers
182 it isn't enough that you would gain to make up the difference because it isn't enough even then to get the industrial business, and it is too much for the man to pay that wants it.

Q. It wouldn't do to give the actual cost of the service to the small consumers would it?

A. No sir, they are unprofitable.

Recross-examination by Mr. STEWART:

— You could tell better what the result of a reduction of that kind would be after you had tried it of course, than you could by speculating on it now?

A. Yes sir.

Q. And you could probably tell pretty well by the experience of other companies?

A. I have had no experience with other companies.

Q. There are a great many companies furnishing gas at a dollar aren't they?

A. Yes, it probably don't cost them as much to make it as it does us.

Q. Why?

A. On account of the materials and their local conditions.

Q. Would the material in Des Moines or Sioux City cost more than in Lincoln?

A. They would cost less.

Q. Why so?

A. They make it cheaper there than in Lincoln.

Q. Can you get oil as cheap as they do in Sioux City, do you know anything about it?

A. No sir.

Q. Can you get your gas coal as cheap here as they do there?

A. No sir, I don't believe they have the same priced contract we have.

Q. What is your price \$5.50?

A. \$5.52 is our price.

183 Q. If they paid substantially the same for coal and oil that you do and were making a profit on dollar gas there is no reason why you ought not to is there?

A. The distribution might have something to do with that.

Q. There is no reason why your distribution would be any more than theirs?

A. There might be more miles of mains, I think Sioux City has more consumers than we have.

Q. Have you Brown's directory?

A. Yes sir.

Witness excused.

Mr. MICHAEL E. MALONE, having been previously duly sworn, was recalled for further cross-examination.

Cross-examination by Mr. STEWART:

Q. Mr. Malone, in putting your valuations on this coal and water gas apparatus did you take the cost of the same to the complainant company, or did you put what you would consider the present value on it?

A. In a great many cases I got the actual figures, or from recent figures obtained for other plants, in some cases I added 10% due to the rise in prices of materials; frequently it is customary for a manufacturer of gas apparatus like other apparatus to send blue print quotations of the value of certain gas apparatus, and from month to month they show a rise of 5% 10%, 15% or 20%, and I put down the present value.

Q. You didn't take the cost to the company?

A. It was based on what it would cost this company at Lincoln.

Q. But not what it did cost then?

A. Oh no.

184 Q. Did you put the valuation of new apparatus?

A. In every case, yes sir.

Q. And up to date?

A. Yes sir, up to date and modern.

Q. Now take the case of this old Springer water gas set, how did you get the value on that?

A. The amount there represents the value of an up to date machine that would make the amount of gas that machine makes, I understand that machine cost over \$9,000. new but I could now buy one for \$6700. that would make as much gas as that one.

Q. You wouldn't buy one now a all would you?

A. No.

Q. You wouldn't give but very little for that kind of a machine?

A. No sir.

Q. You wouldn't buy one now at all would you?

A. No.

Q. It wouldn't pay to give \$6700. for it?

A. No sir.

Q. And specially after it had been used for 20 years?

A. Oh, there is a natural deterioration.

Q. And that is what you have done all the way through, you have figured new and up to date apparatus?

A. Yes sir.

Q. Now in figuring the cost of replacing gas mains in the dirt streets what elements of cost did you figure on, and give the amount of them?

A. Well, the elements wer- the excavation and back filling.

Q. Just give the amounts on them as you go?

A. It is hard to do that the total cost is all here primarily as one item.

Q. But I want to know how you arrive at that?

A. I put them down here that they are known to cost,
185 just such sums per mile, different engineers would give different amounts, one engineer might vary \$50. a mile from another.

Q. Well take the first item?

A. Do you want to take that in the different sizes?

Q. Yes sir?

A. Well, 2 inch pipe, back filling and excavation and material 25c a foot approximately, it might run 28c and it might be as low as 22c depending on the nature of the soil and the fluctuation of the pipe.

Q. What figures did you take?

A. 13c. for pipe and 12c. for excavating, back filling, tamping and watering.

Q. Take the next size?

A. That is 4 inch pipe that figures \$3150. per mile, that sum divided by 5280 feet would give the cost per running foot, I think it is 55c per foot for pipe or \$30. a ton, labor is \$1.75 for 10 hours' work.

Q. Now the 6 inch pipe?

A. That is \$4660. per mile, at the same price per ton \$30.85 for the pipe; those are quotations gotten especially for this location, and the balance was for labor and back-filling I can get this by dividing that by 5280 and it would run 90c to the foot and 90c by 200 would be 46c and so on down the line.

Q. That is the cost per mile as you pay for the cost of the pipe and the excavating and back filling?

A. Yes, but there is more items that enter into that, there is lead, and yarn, wood to melt your metal, that and coke.

Q. Have you figured those all in?

A. Yes sir.

Q. How much do you allow for those per mile?

A. I can give you some of those items, they don't compare exactly but they don't vary but little if any.

Q. We are figuring on 6 inch pipe now?

186 A. The 6 inch pipe is \$30. a ton or 55c a foot; the cost of stringing is 1c a foot, digging and back filling is about 15c, that will vary from 12c to 18c; laying and handling 5c lead and yarn 7c hauling wood, coal and coke different fuels you use 7c, this makes it 87c, I took the back-filling at \$1.15 making it 90c instead of 87c.

Q. What did you say you figured the labor at?

A. \$1.75; these figures are figured on the basis of \$1.75 for labor, we are paying that now for 8 hours' work in Denver, I don't know what they pay here.

Q. Now on the paved streets do you take the same figures you do on the dirt streets, plus the expense of taking up and putting down the paving?

A. Yes sir.

Q. And what do you allow for that?

A. There are three classes of that namely wooden blocks, two course brick, and asphalt, which do you want first?

Q. Take the wooden blocks?

A. The costs that enter into that are plus the ones already enumerated, in this particular instance there was 4200 feet of original blocks; I obtained some figures that were in vogue here, I took the figures that were actually in existence here, our Superintendent of distribution got them for me and I verified them; I found this particular number of feet 4200 and allowing $2\frac{1}{2}$ feet in width for the trench there are 1166 square yards in the 4200 feet, in other words it is \$1. a square yard to tear up the old concrete base for the wooden blocks and put it back again.

Q. How wide do you dig the trench?

A. $2\frac{1}{2}$ feet, the trench would only be 2 feet but you will find it wider at the edge at the top where it falls in.

Q. You figure a- \$1. a square yard?

A. Yes sir, for the 6 inch pipe.

187 Q. Now then, take the 2 course brick pavement?

A. I figured that in detail, it requires 1-6 of a yard of sand to cover one square yard of surface at \$1. a yard would make it 16c the item of brick, it takes about 100 brick on a two course pavement, in this case I took only 50 brick because I assumed that you could use 50 brick out of the 2 courses taken up that could be used again. The 50 bricks at \$18. per thousand would amount to 90c that with the sand amounts to \$1.06. The labor would be 50c making a total of \$1.56 per square yard.

Q. How many squares did you have of that?

A. 15375 square yards over our mains, or a total of 61500 lineal or running feet.

Q. Now take the asphalt?

A. The cost of renewing the concrete is \$1. a square yard, that is work that would have to be let by contract; and \$2.50 for the asphalt making a total of \$3.50 for the cost of re-surfacing the trenches 2 feet wide; there were 98300 square feet or 10922 square yards.

Q. Now how much do those 3 items amount to, the taking up and replacing the pavements?

A. That amounts to \$63378.

Q. And the balance of the cost you figured on is the ordinary cost of excavating, supplying the pipe and back-filling yarn, lead and all the other little items?

A. Yes sir.

Q. Now these service pipes in dirt streets what are your figures on the items on that?

A. \$13.50 each?

Q. \$13.50 each?

A. Yes sir.

Q. How do you get that, what are the items that make that up?

A. That is the average length of the service required in Lincoln.

188 Q. What average is that?

A. The same items, the cost of pipe.

Q. That is what I want, where do you get your figures?

A. The pipe is 6 $\frac{3}{4}$ c per foot, the excavation and back-filling would run in this case about 15c to 16c a little more than on a main because you have the curb stone, lawn, and you have to punch a hole through the front cellar wall, and avoid trees and bushes, and we put that in at 16c generally as we have to be a little more careful than out in the street; then there is the labor of stringing 1c the laying and handling would be about 3c and I guess that would about cover it, per foot, making 26 $\frac{3}{4}$ c. per running foot and then there is the permit which costs \$1. I am told.

Q. How many feet have you figured for service pipe?

A. The average service would be about 67 feet in Denver, it is more here, perhaps it would run 70 to 75 feet, I don't remember just what I did take for that distance here.

Q. Look at your figures and find out?

A. I averaged them at 50 feet to the service, the streets are 120 feet, 100 feet, 80 feet and 60 feet and I took them as the four and divided by 4 90 feet from the main in, and we took 50 of the 90 feet, that would be 50 times .2716 that would be \$13.58, this would make it \$13.58 but my figures are \$13.50 per service.

Q. What are your items on service under wooden block pavement?

A. Well, the same items that would enter under the mains, there is very little difference.

Q. What do these three items amount to for taking up the pavement and replacing it?

A. I have them all run together here, wooden block pavement, and rate per service \$19.66 as against \$16.50 the difference would be the cost.

Q. And on brick pavement?

189 A. Two course brick pavement I haven't got the rate per service on here.

Q. Can you give me the figures on that?

A. I can give you the rate per service, just divide 1024 services into the total cost.

Q. \$13.50 per service is what you allowed for replacing the paving?

A. Yes sir.

Q. You divide \$421427. by 854 the number of services and the difference between that result and \$13.50 would be what you have allowed for taking up and replacing the paving?

A. Multiply \$13.50 by 854 services and the difference between that and the other would be the amount.

Q. This item here cost of meters, what style of meters do you figure on?

A. The ordinary dry meter, what we call the dry gas meter, which is about the only style in vogue.

Q. Do you buy of any particular manufacturing concern?

A. No, there is a dozen or more manufactories in the United States.

Q. They all run about the same price?

A. Yes sir.

Q. Is this the wholesale price?

A. Yes sir.

Q. What it would cost this company or any other company?

A. You can get them, I think there are a number of them in the combination but I think you would have to pay this price for them.

Q. These are the prices now?

A. Yes sir.

Q. You don't know what this company's meters cost them?

A. No sir, these are Denver prices, but I doubt if they could buy them any cheaper than we can.

190 Q. This item you give under the head of "Cost of organizing the company," where did you get those figures found on page 8?

A. I got them from different sources, some in Denver, some in Lincoln, as stated in my previous examination I had to make special inquiry.

Q. Did you get the amount of attorney fees from attorneys in Lincoln?

A. No, they were Denver prices, I presume.

Q. You never had any actual experience in organizing a company did you?

A. Never, only in participating in a very minor degree.

Q. So as to this item you don't pretend to know of your own personal knowledge?

A. No sir. Might I correct a statement? Mr. Rose wanted to know this total sum of \$24950. including the cost of getting a franchise, I presume he meant the attorneys' fees here I didn't catch that, but Mr. Freueauff told me you couldn't get franchises for that. I didn't mean going into city councils and lobbying or anything like that; I know of one case where it cost \$300,000. to get a

franchise; you can't get one in Colorado for that I know; I don't know anything about this country.

Q. Mr. Malone, you gave an item of \$67,884.09 as a contingent expense which would be 12½% I think on the original cost of the plant?

A. Yes sir. That reads 2½% and it might be well to correct that.

Q. It is 12½% is it?

A. Yes sir.

Q. Now that, you say, is to cover possible contingencies that might involve an expense during the progress of the work?

A. Yes sir.

Q. Did I understand you to say that you had ever any experience in the construction of a plant where you actually handled and managed the finances?

191 A. No sir, not in raising the capital, in getting the charter or franchise I have helped a little here and there, but not very much.

Q. Have you had any experience, for instance, in regard to the items like this contingent expenses?

A. Yes sir.

Q. So that you would know something of the items that you would cover by that sort of an estimate?

A. I have been in touch daily for 10 or 12 years, no engineer would put in a service without putting in an estimate of the cost in advance, no building or apparatus is put in without first having to have a requisition got out before the requisition on the purchasing agent is allowed to go through.

Q. You don't know, as a matter of fact, what that contingent expense was in the construction of this Lincoln plant, what it actually amounted to?

A. No I don't, but I know what it would amount to in replacement of the plant.

Q. What you would figure on?

A. Yes sir.

Q. But you might come out ahead or behind?

A. Yes sir, that varies.

Q. But you are supposed to put it high enough so that you won't come out behind?

A. Lots of times you come out behind anyhow, you frequently do.

Q. Did you put in any item here of interest on the money invested in the construction of a plant for a year?

A. Yes sir.

Q. You don't mean that you would have the entire cost of the plant invested for a whole year without getting any return from it do you?

A. Yes sir.

192 Q. How long would it take you to put in a central plant and lay some mains and service pipes so you could begin to sell gas?

A. It is not customary to do it that way, they generally complete

their plant and put in a reasonable number of miles; in this town there is 62 miles, if that was to be rebuilt I wouldn't think they would do it until they had 40 miles completed anyhow.

Q. How long a time would it take to do that?

A. I put the time down as a year, but they have been almost two years on their plant at Salt Lake, City, Utah.

Q. In order to get enough miles of mains done to afford to start up the plant it would take a year?

A. Yes sir. They have been building one in New York for four years and they are only one-sixth done now.

Q. But in this case you would say about a year?

A. About a year, it might be done in 9 months and it might take 15 months.

Q. You wouldn't have the whole \$631,000. in that whole year, it wouldn't be a whole plant until it was built?

A. No, but you would have to get your money, you would have to put the money into it as required; you would first have to borrow it, you wouldn't start a plant unless you knew where you were going to get your money.

Q. But you wouldn't have your money idle for a year would you?

A. It would be a risk not to, I would be very careful to see that I could put my hands on it when I wanted it, it is customary to do that also in street improvements, and in municipalities.

Q. You don't mean to say that you would borrow \$631,000. and keep it on hand for a year after you had decided to build a gas plant that was going to cost that much?

A. Well, you couldn't very well draw interest on it unless you put it in a bank for a year before you drew it out. I don't see any way out of it unless you could loan it for a short time.

193 Q. You don't know very much about finances then to think you would have to do that do you?

A. I have seen it done on \$5,000,000. the money laid idle in the County Treasurer's office for upwards of 3 years, or a portion of that was there.

Q. Would you go ahead and borrow your working capital in advance, \$59,146. a year ahead?

A. Yes sir; where are you going to make that second loan? You get all of your money in advance, it is hard to get a second loan.

Q. Do you think it couldn't be arranged so that you would get your money as you needed it?

A. It is safer to get it all in advance.

Q. Do you think that is the way it is ordinarily done?

A. I do, lots of times you have \$50,000. or \$60,000. to go on. They allow that for accidents, you might kill a man, and for lawsuits and lots of things that might enter into the matter.

Q. I was enquiring whether the only practical way was to have all of your money on hand before you started the work?

A. I wouldn't say that it was the only practical way, but it is the best way.

Q. Even the working capital you have on hand?

A. Yes sir, it is a fact that they sold stoves in Salt Lake for over

a year and had their full force of supervisors at work and had a car-load put in residences and connected up and had their office in full running force for over a year before they commenced to sell the gas.

Q. You wouldn't need to keep 3000 tons of coal on hand all that year would you?

A. Hardly, you would need it when you got to making gas.

Q. But not before?

A. No sir.

Q. Now this cost of obtaining money, this 20%, that would be what you would have to pay if you didn't have any money
194 to build the plant with and was going to borrow all the money to build it with?

A. Yes sir.

Q. The fellow who wouldn't have any other security to put up except the plant after it was completed?

A. He might have it.

Q. Well, that is, he wouldn't put up any other securities?

A. No sir.

Q. For financing that kind of a proposition when you have to pay 20% there is nothing similar to this kind of an enterprise is there.

A. Yes, street railroads, and telephone companies.

Q. Where the fellow hasn't any money and the party furnishing the money simply takes what his money produces as security even that kind he would expect 20% extra bonus?

A. Yes sir.

Redirect examination by Mr. ROSE:

Q. Mr. Malone, as a man experienced in the handling of gas plants is there any inevitable depreciation from year to year of the properties that enter into such plants?

A. Yes sir, there is considerable every year.

Q. You may detail some of the causes of depreciation?

A. Natural deterioration and accidents from every cause cover everything.

Q. Is there anything due to the demands upon the plant, out-growing the equipment originally installed?

A. Yes sir, I know of several instances, one in particular where the manager of the gas company insisted on having a new purifying house and in fact everything but the generators and benches rebuilt, they were too small.

Q. In what length of time?

A. He asked for 16 inch works, that means connections, piping connecting different apparatus, at that time they were 8
195 inch and he wanted to jump to 16 inch, he knew it would cost a good deal of money and cause a loss to tear it out, they put in 12 inch and inside of 6 years they had to tear out the whole thing which cost them over a million and a half, and they went then to 18 inch.

Q. Is there any certain way that an engineer can anticipate the future demands on a work, a public utility plant of this character?

A. No sir, it is all guesswork and you have got to be a good guesser too.

Q. Suppose in a town like Lincoln was a number of years ago there had been an effort to anticipate a few demands upon the plant of this character what would be the effect as to the capital requirements at the time the plant was constructed?

A. Well, that would perhaps take 50% to 100% more anticipating if you put in one regardless of depending on good times and a profitable business, to increase your plant might put you out of business too.

Q. Is there any way to get rates to double the capitalization and then wait for development?

A. No sir.

Q. Is this proposition practicable to do that?

A. I don't know of anybody willing to invest money in anything of that kind.

Q. Could the revenues be derived sufficiently to pay interest upon the invested capital for such excessive requirements?

A. I am satisfied they could not.

Q. You may state in a general way whether this same principal holds good in respect to the laying of mains?

A. They more than hold good, in that case; I have known of mains put down in Denver that were expected to take care of a certain district that were taken up in less than 18 months.

Q. Would that hold good in any city where the center was shifting?

196 A. It might if it went in the wrong direction, in this particular case it outlived its usefulness in 18 months. It was in a paved street too.

Q. State whether instances of this kind are mere incidents to this business, hazards of the business?

A. They are but they occur quite frequently.

Q. I mean is it a necessary consequence in conducting plants of this kind?

A. Yes sir, it is.

Q. State whether or not the item of depreciation is, in your opinion, a necessary item of the maintenance of a plant of this character in addition to and outside of the item of ordinary repairs and maintenance?

A. Yes sir, we allow a specific sum for this purpose.

Q. What I want to know is to maintain the integrity of the plant whether it would be necessary to allow a sum for depreciation outside of what is actually expended in ordinary repairs?

A. Yes sir, a certain sum.

Q. What is your opinion as to whether the repair account and maintenance account should properly include an account for depreciation?

A. Well, I should think they should be entirely separate; its

machinery might break down, do you get that, that would be repairs, and it wouldn't necessarily wear out for 5 years.

Q. Now would this fact of the depreciation apply to the larger items of appliances such as holders and machinery?

A. Yes sir.

Q. In your experience even with the water gas sets?

A. Yes sir. And sometimes even with the coal gas benches too, all of them are more or less hazards and dangers of explosions. You take metals, we can't use any brass work around where it comes in contact with the ammoni-cal liquor ammonia has a less affinity for iron than for brass.

Q. Now the item of steam boilers, do you regard that as a considerable item?

197 A. I would indeed, much more than in an electric plant because it is continuously at work.

Q. How would a boiler in constant operation for 24 hours a day at the steam pressure it is required to stand in a plant of this kind,— what would you figure as the usual and ordinary life of such a boiler?

A. Well, in a plant of this kind I would say 7 or 8 maybe 10 years I have known them to be thrown out in 3 years in a larger plant, not because of the depreciation but because they were too small and they put in larger boilers taking up less space.

Q. Taking into consideration all the appliances used, the necessities for changes from all causes, the actual depreciation by wearing out from use, what would you say would be the reasonable percent to be allowed for the item of depreciation alone over and above the item for repairs and maintenance?

A. I have always contended for 5%; I have heard lots of engineers say it was too small, but I think that would cover it in an ordinary gas plant; I have seen \$80,000. worth of stuff torn out and never used to make way for other stuff in Chicago, that wouldn't occur in every plant.

Q. Now in your experience as an engineer, superintendent and manager of gas plants are the persons who invest their capital entitled to keep the plant up to its efficiency so that the replacement, even for new material would represent the capital upon which the Company was entitled to derive its revenue?

STEWART: Objects as argumentative and calling for a conclusion and not within the province of the witness.

A. Well, I think not only entitled to but would be justified and ought to be censured if he did not; If I was one of ten that had an interest and the other nine wouldn't go forward I would feel pretty blue, I would protect their interests as well as mine.

198 Q. Have you gone over the system of classification used by this Company?

A. I did in the manufacturing end, I never paid much attention to the financial end, I watched the classifications for the cost of the manufacturing and distribution pretty closely.

Q. Do you use the identical system at Denver as they do here or practically so?

A. Yes, all the companies use the same form.

Q. All what companies?

A. The McMillian Syndicate.

Q. This is not an independent plant?

A. Yes, the Independent American Lighting and Traction Company.

Q. But all use the same system of reports?

A. Yes sir.

Q. Would you say that this system of distributing the manufacturing, the cost and all the items of manufacturing is just and correct?

A. I would, I think it is ideal, not only a good system, but an ideal one. I haven't looked at these particular figures.

Q. Familiarize yourself with it and see if the form given is one with which you are personally familiar and state whether you are or not?

A. Yes, this is the identical form, I don't think there is any difference at all.

Q. Having examined it do you believe that is a correct system?

A. I think it is the best system in the country, of course there are other companies that have different forms.

Q. Which system in your opinion is the most accurate and just?

A. This particular style of classification. No other system for this industry would approach it in accuracy. I have heard of one that expects to be better.

Q. Is that system in active operation?

A. No sir, it is to come out sometime this fall.

199 Recross-examination by Mr. STEWART:

Q. You spoke about the McMillian Syndicate?

A. I spoke about the form used by them.

Q. That is a syndicate that owns and controls a number of gas plants?

A. Yes, I understand so.

Q. And Mr. Dogherty its president is the president of this company?

A. No sir.

Q. He is of the Denver Company isn't he?

A. The Denver Company don't belong to the Syndicate.

Q. Mr. Dogherty is president of the Denver Company?

A. Yes, and he is of this company too I believe.

Q. What is your relation to the Denver Company?

A. Superintendent of the gas department.

Q. Of the manufacturing department?

A. Yes sir, the manufacturing and distributing department.

Q. What is the cost of manufacturing gas there?

Mr. ROSE: Objects as immaterial.

(Question withdrawn.)

Q. What do you pay for oil out there?

A. We pay about 6 cents per gallon.

Q. And what do you pay for coal?

A. We have a new contract now it is less than it was, it is in the neighborhood of \$4. per ton.

Q. What kind of coal is that?

A. It is Colorado coal.

Q. You pay more for oil than they do here and less for coal?

A. I think that is so.

Q. Which kind of gas do you make the most of there water gas or coal gas?

A. That depends upon the condition of our apparatus, sometimes we make more water gas and other times more coal gas, we are making very little water gas now, we are making more coal gas.

200 Q. I mean your annual out-put?

A. At the present time we are making half and half.

Q. Ordinarily you make more water gas?

A. No, ordinarily we make more coal gas.

Q. You testified, I believe, that the conditions for making gas were not as favorable in Lincoln as they were in Denver?

A. Yes sir.

Q. What is the difference?

A. The principal reason is in getting material at a lower rate.

Q. Labor is no cheaper there than it is here?

A. No, I would say it is a stand-off, they pay about the same here as we do there.

Q. What is the difference in the cost of manufacturing gas there and here?

A. There is a slight difference in the quantity, we make more of it which even at the same price would make it less.

Q. What does it cost to make gas there?

Mr. Rose objects as immaterial, not proper cross-examination and not a proper criterion what the expenses are in another locality, the conditions vary.

Mr. STEWART: I insist on the question being answered.

A. There are certain items of cost that enter into it that I wouldn't know after it gets past the general manufacturing and distribution department, such as salaries, and general expenses.

Q. I was speaking of what comes strictly within your jurisdiction?

A. I would like to have you state what that is?

Mr. ROSE: We don't care, for the purpose of this hearing what that is, so far as our company is concerned; we don't care anything about it for the purpose of this hearing; we have no objection to the witness stating it unless there is some reason personal
201 to himself why he thinks it would be a betrayal of his duty to make it that is all. If he feels free himself to make it he can state it.

A. It has always been customary for its officers not to give away the price of material.

MR. STEWART: But they ought to answer the questions put to them when they are put on as experts.

A. I have seen the cost of gas in Denver go upwards of 50c per thousand.

Q. What is the cost at Denver?

A. It varies.

Q. What does it run now?

A. In the neighborhood of 50c per thousand that will be just the cost of manufacturing, the distribution cost will run from 30c to 35c.

MR. STEWART: I move to strike out the answer as not responsive to the question, and for the further reason that the witness has already testified that he did not know what the distribution cost was.

Q. In this system of accounts isn't this run into the general distribution?

A. That is all added on afterwards.

Q. That plant is run under the same system, the accounts are kept the same and it is under the same general manager, and the president of that company is the president of this company?

A. Yes sir.

Q. Have you given me the cost of manufacture and the cost of distribution accurately?

A. As near as my memory serves me, yes sir.

Q. Have you an accommodating memory?

A. I have.

Q. This matter of depreciation, if the pumps have worn out, and the mains are broken or the apparatus that is all taken care
202 of in the general operating expense account there wouldn't need to be any further fund provided to take care of them would there?

A. Oh yes, for natural deterioration.

Q. No, but for the same items that has already been taken care of?

A. The repairs have and the maintenance is all in, but we don't take care of the deterioration from month to month only by a fund for that purpose.

Q. If the necessary replacements of worn out or broken mains and other apparatus and appliances have all been taken care of as they go along in the expense account it is not necessary then to provide an additional fund to cover the same items is it?

A. Yes, in all cases. I can cite one in particular if you will allow me,—

Q. Items already taken care of?

A. Yes sir, taken care of as an expense for repairs.

Q. If the plant has been kept up to a reasonable degree of efficiency do you mean that you have still got to provide a fund to take care of an item already taken care of?

A. Yes sir.

Q. Just explain that?

A. It is an old saying that it is cheaper to repair your works than

to buy new, you can repair up to a certain point, for instance,—
(Interrupted.)

Q. I am not asking for theories of doing business?

A. I am going to give you the facts, in one case we had occasion to put down a two inch main in boxes covered with pitch which was 1,200 feet long, and we put it down in boxes covered with pitch to protect it from electrolosis in 3 months half of it was eaten out and we had to replace it, and the other half we are going to take out now and put it through a bridge to get it away from electrolosis we did this from funds in the operating expense account.

203 Q. And you took all of that expense out of your operating expense account?

A. Yes sir.

Q. Have you still got to provide a fund over again for that?

A. We have a number of miles in that same condition.

Q. Have you still got to provide a fund over again for that if you did it out of your expense account?

A. Suppose our entire system went up that way?

Q. That isn't supposable?

A. I know of a case of that kind, down near Steubenville, Ohio, they undertook to put in artificial gas where there was a natural gas system, where the system has been put in absolutely new, and at Oshkosh, Wisconsin, they had to take up 2-3 of their system.

Q. But that was on account of some special default or defect in system? Or in the chemicals in the soil?

A. Yes, there would be some good reason for it.

Q. Where a system has been in 33 years as this system in Lincoln has and each year where a service or a main should wear out or become defective it was taken out and replaced and the expense of it was charged up to the operating expenses and the system has been maintained by that sort of a process at a high state of efficiency according to the testimony here, if you continued that policy in the future you wouldn't need to provide an additional fund for taking care of the same item of expense would you?

A. Not exactly the same item, but let us assume some figures suppose you had 50 miles of mains in 33 years, and during that time you renewed 25% and about the time the 33 years elapsed the entire thing would go to pieces all but this 25% that was still in good shape, that frequently occurs; we frequently have occasion to take out main transmission pipes, as we are doing now in Denver, and we put that in somewhere else, we lose 6 or 8 inches off

204 of each pipe each time we take it up and re-lay it; we may leave it in the ground 3 or 4 years and then take it up again and put it some other place. There is a place on this report for abandoned mains, miles of abandoned mains.

Q. Suppose you charge that up to expense?

A. We don't generally do that.

Q. But suppose you did charge it up to operating expenses where you put it in new you don't have to provide again for it do you?

A. If you kept on doing that you wouldn't have enough receipts left to take care of it.

Q. You don't have to provide for it again after you have made one provision for it do you?

A. No not on one particular block.

Q. If the funds you set aside for operating expenses are sufficient to take care of these things as they go along you don't need any other fund do you to take care of it?

A. I think so yes sir.

Q. Do I understand that that is your testimony?

A. Yes sir.

Q. Where the company has already made adequate provisions for taking care of the depreciation in the operating expense fund you still think that you must make an additional arrangement to take care of it in some other fund?

A. I do.

Q. What is the difference whether it is taken care of by the operating expense fund or some other fund called by some other name?

A. Simply because one is repair, when you put in a thing entirely new it is cheaper.

Q. Suppose when you pay for it you pay for it out of your operating expenses?

A. That isn't supposable.

Q. Well suppose you do pay for it out of that fund?

A. You couldn't do that because on your line of argument you keep on repairing until your plant falls down on you, after a certain number of years you have to tear it down and put up a new one, there is a limit to repairs on anything.

Q. But where you replace it instead of repairing it there is no limit for it?

A. No sir.

Q. Where you pay for the replacement out of the operating expenses you don't have to have another fund to take care of it too do you?

A. Not that particular part no.

Q. Suppose it is the policy of the company to make all replacements out of the operating expense fund it is not necessary to have another provision made for them and call it a depreciation fund is it?

A. Yes, because it might be cheaper to replace that entire plant from that particular fund, than to repair it.

Q. Now then if you set aside 70 cents on every 1000 feet of gas for operating expenses and to take care of these necessary repairs and replacements wouldn't that be just as good a system as to set aside 60 cents on each 1000 feet of gas for operating expenses and 10 cents for each 1000 feet of gas for general depreciation, that is you would have a fund of 70 cents in both cases?

A. Yes sir. Only you would have to take care that you didn't eat the whole 70 cents up on repairs.

Q. Well assuming that that is an adequate provision?

A. Yes sir, theoretically that is right.

Q. If the company ran their business that way and call it all

operating expenses, the whole 70 cents, it is not necessary to have another additional fund, provided that 70 cents is adequate is it?

A. It is simply a matter of accounting.

Q. You would know if you had the money in that fund to keep them.

206 A. You would know if you had the money in the bank.

Q. Do you know what the average life of an iron gas main is?

A. That depends on the conditions, I have known them to last 18 to 20 years, and I have known them to eat out in 7 months.

Q. Isn't the average life at least 50 years?

A. The average life of a wrought iron main is 8 to 10 years but that is taking into consideration all sorts of deterioration.

Q. You heard Mr. Homer Honeywell's testimony?

A. Yes sir.

Q. You heard him testify that this plant had been started 33 years ago and none of their iron mains had to be taken up or replaced?

A. That was cast iron, your statement here was wrought iron. I haven't got to the cast iron yet.

Q. Do you state that as an expert?

A. On wrought iron pipe yes sir.

Q. That the life of it is 7 or 8 years?

A. Yes sir, depending on the nature of the soil.

Q. Do you know anything about the soil here in regard to the life of wrought iron pipes?

A. No sir.

Q. What would you say about cast iron mains?

A. It will last much longer, in some cases I would say from 16 to 20 years and maybe 25 years depending on the weight of it, there are different grades. You take 4 inch pipe that runs 20 pounds to the foot, Water pipe runs 26 pounds to the foot and extra heavy will run 30 pounds to the foot those kinds will last much longer.

Q. You don't know what kind they have here?

A. I do not, but I would think the standard pipe which would run about 30 pounds to the foot for 4 inch pipe.

Q. Did you ever read or consult any standard authorities on the question of the life of cast iron gas mains?

207 A. Yes sir, I have read some articles in technical journals but they are not always reliable, some fellow wants to show how much better his material is than the other fellows.

Q. I am speaking of disinterested experts?

A. Yes sir.

Q. Have you heard of Humphreys?

A. There is a man by that name, who is president of the Stevens Technical Institute.

Q. And he is recognized as the greatest gas expert in the United States isn't he?

A. I have never heard of that.

Q. Is he recognized as an expert?

A. Yes sir, he is one of the best, but I have never heard of his

being put at the head. They confine themselves mostly to water gas apparatus and don't bother with mains and coal gas at all.

Q. This 5% that you speak of is 5% of what, of depreciation; you said you would allow 5%?

A. 5% of the value, you put away 5% of your earnings, some parties do it on one and some on another usually on the cost of the article or on the distribution.

Q. Well the history of a gas plant for say 25 years would settle very conclusively what would be the necessary expense for depreciation wouldn't it.

A. It might in a great many cases, I have know- of lots of cases that it wouldn't, lots of plants are selling less gas today than they were 25 years ago.

Q. I am speaking about the depreciation?

A. That would have a bearing on it.

Q. As to how much it would cost to make good the depreciation and deterioration of a plant if you took 25 years as to what it had been required to pay out to make good the loss by depreciation would be pretty good evidence wouldn't it?

208 A. Yes, but it would vary in almost every town.

Q. But the history of this plant for 25 years for instance as to what they had actually been compelled to pay out to make good the loss by depreciation would be almost conclusive evidence of what would be necessary to provide for the same purpose in the future?

A. Not if it was operated by a different set of men.

Q. Assuming that it was operated by the same set of men under the same general plan?

A. The same set of men might get more up to date ideas and would conclude that it wouldn't be a good thing to go on the history of 25 years' experience.

Q. But in carrying out the same general policy and ideas you would judge your future by the past wouldn't you?

A. It don't follow that they would continue the same methods.

(Question repeated.)

Q. But in carrying out the same general policy and ideas you would judge the future by the past wouldn't you?

A. Sure, if they had been putting away 5% for depreciation, or if they hadn't I would think the past 25 years' experience would be a good policy to either improve on or follow.

Q. And that would be better than the judgment of any expert who wasn't thoroughly familiar with the particular conditions of this particular city?

A. No, I wouldn't think so as one would be that was familiar with a number of other plants identically like this one.

Q. But you said there wasn't any other identically like this one?

A. That is due to the composition of the public, the gas plant is almost identical, I am speaking of the public and not of the soil.

Q. Say for a person that was thoroughly familiar with the conditions here in Lincoln, and had had 25 years' experience in operating a plant here such a person would be better able to judge what would be necessary to provide for depreciation than
209 some outside person?

A. If he was capable of judging at all he would be, sure.

Q. It is a fact isn't it that on this subject of depreciation experts differ very greatly in the amount they think ought to be provided for that purpose?

A. I never heard until within a week that anything less than 5% was adequate, I have heard lately that 4% was considered sufficient, it usually is as high as 10%.

Q. Do you know this Alexander H. Humphreys in his recommendation to the Chicago Committees on gas regulation recommended and advised that where the repairs were taken care out of the operating expenses that the only contingency of having to replace each section of the plant need be provided for with the 5% on the receipts from consumers would be an adequate amount?

A. I would rather have that than 5% of the value of the plant.

Q. You would?

A. Yes sir.

Q. It would make a much less sum wouldn't it?

A. I don't think so.

Q. Take this case, where they receive about \$2,000,000. for gas 5% of that would be \$10,000.

A. I mean for a running period each year, I don't confine myself to one year, the plant value wouldn't change, the receipts do change.

Q. That would be your depreciation fund then, 5% of the value?

A. I would rather have 5% of the gross receipts for 20 years than 5% of the value of the plant for one year.

Q. That is what you have been saying that the depreciation should be 5% on the value for one year?

A. Of course, we carry that on each year and spend it each year if they have any replacements to make, lots of times they have to make changes every year.

210 Q. How much of a fund would you think should be provided then under your theory for depreciation for a plant like this one?

A. I can't get away from 5%.

Q. In dollars how much annually would you provide?

A. I don't know as I understand you?

(Question repeated.)

Q. I- dollars how much annually would you provide?

A. Well, I would say 5% on the capital of the company which would be \$1,000,000. that would be \$50,000.

Q. Do you mean to say that you would rather have 5% of the receipts from the consumers than you would to have 5% on \$1,000,000.?

A. I don't know as I would in this particular case, but in a great many cases I would though, because sometimes the gross receipts are something enormous.

Q. That is where their capital is also enormous isn't it?

A. I never knew of a company where their gross receipts were more than their capital.

Q. You have never heard of them?

A. The Standard Oil might.

Q. You are a little mixed on that aren't you?

A. No, I think not.

Witness excused.

The hour of adjournment having arrived a recess is taken until Thursday, September 26th, 1907 at 10 A. M.

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SEPTEMBER 26, 1907—10:30 a. m.

The parties met pursuant to adjournment and the following proceedings were had and done.

MICHAEL E. MALONE, recalled on behalf of complainant.

Examined by Mr. ROSE on behalf of complainant:

Q. Do you have the details of the item of the sum of \$24,000.00 of organization expenses with you worked out?

A. Yes sir.

Q. What page of your report is it on?

A. Page "8."

Q. Now you may look over the details and say if in arriving at that figure you included anything for the value of the franchise, see whether you are correct or mistaken in your direct examination?

A. I think that question came up. The franchise is simply left blank. I did answer that once.

Q. Did your details show that you paid anything for the franchise?

A. No sir.

Q. What do you have in there for the item of filing articles?

A. Filing certificates of incorporation, Secretary of State, \$250.00.

Q. Do you know what the filing fee is in this state now per thousand since the 5th. of July last?

A. I don't know when it went into effect. I understood it was fifty cents a thousand.

Q. At fifty cents a thousand for filing the articles of incorporation, with an authorized capital stock of two millions and a quarter what would that item be?

212 Mr. STEWART: The defendants object as immaterial, it being a mere matter of computation.

A. It would amount to \$1,125.00.

Q. Then in respect to the item of organization your estimate was very much too low?

A. Yes sir. That is a small matter anyhow.

Q. Now, Mr. Malone, are the usual and ordinary repairs and maintenance charges paid from time to time by companies of this sort?

A. Yes sir, daily.

Q. Now in figuring your 5% depreciation that you mentioned, you may state whether or not that sum is required to maintain the plant over and above the item of the ordinary cost of repairs and maintenance?

A. Yes sir, we always provide for it in every company I have ever worked for.

Q. Now I think you left a little confusion as to what you meant by 5% depreciation, do you wish to make any further explanation in regard to that item?

A. If I wasn't clear on it my idea would be 5% on the buildings, or any portion, or other depreciation on the plant, etc., the actual cost.

Q. Not 5% on the receipts of the plant?

A. Oh, no sir.

Q. Figured then on the actual cost, or replacement cost of the manufacturing and distributing plant?

A. Yes sir. That record shows for that, it was 5% on the cost.

Q. Is that the way you figure it?

A. Sure; that shows for itself; \$631,000, and 5% of that would be so much money.

Q. In your cross-examination reference was made to your
213 figuring in that estimate on the reduced cost of putting in a modern gas set with the same capacity as the Springer set. do you remember your testimony in that respect?

A. Yes sir.

Q. Now in respect to that particular item then I understood you on cross-examination you did not figure on replacing the old Springer set in kind?

A. No sir.

Q. And the figures you gave would be smaller?

A. Yes sir, than that originally cost.

Q. Now whether you remember it or not, I understood in answer to a question of the City Attorney that you left the inference that you adopted the same plan in figuring on the rest of the material. Now take for example in your estimate here, on your report here of the cost of the coal gas apparatus?

A. Yes sir.

Q. I notice you have an inventory of the materials there?

A. Yes sir.

Q. Now are those items given in your estimate the identical articles that you found at present in use by the company, outside of the Springer water set?

A. Yes sir, to replace identically the same type.

Q. The same type and same number?

A. Yes sir.

Q. To replace the identical plant?

A. Yes sir.

Q. Outside of the Springer set?

A. Yes sir, that is the only exception.

Q. The identical kind of mains?

A. Yes sir.

Q. You figured on two inch wrought iron where the com-
214 pany has them?

A. Yes sir; foot for foot.

Q. And cast iron mains where the company has them?

A. Yes sir.

Q. And the actual buildings and sheds, and everything that the company now has?

A. Yes sir, the same thing exactly.

Cross-examination.

Examined by Mr. STEWART on behalf of the defendants:

Q. Take the meters, has there been any material change in meters in the last ten or twenty years?

A. Not materially, the type is identically the same and has been for fifty years, but there has been a little improvement here and there, a different kind of material perhaps, a little heavier material, an extra rivet here and there.

Q. You say you allow for depreciation 5% on the actual cost of the plant?

A. Yes sir.

Q. Now would you apply that to the real estate?

A. No sir; that would enhance if anything, I think.

Q. Well, take other apparatuses that are required in a gas plant, you say you added some places in making up this schedule 10% to 20% to what it cost them ten or twenty years ago. The market value has advanced?

A. Yes sir.

Q. Where property has appreciated that way in the market would you still allow a 5% depreciation on it?

A. Yes sir.

Q. A machine that was put in last year that this year would be worth 10% more than it cost then you would still allow that it was not worth as much by 15% this year that it was when it was put in?

A. I would put 5% depreciation; it might depreciate 50% during the year; that is an average condition.

Q. Suppose a machine, allowing for depreciation, was actually worth more money this year than it was last year, that is it had appreciated more than it had depreciated, what would you do in a case of that kind?

A. Well, there are certain contingencies that might arise that would be bound to keep that actual percent of 5% depreciation. Suppose natural gas came in here, this plant would be on the "bum" right away, you would sell it for junk.

Q. We would consider that as an unreal proposition?

A. No sir, there are two or three hundred towns in the United States that do it right in Kansas.

Q. Your idea then is to provide against that kind of a hazard?

A. Yes sir, that is one of the hazards,—one of the greatest, too.

Q. You think that a public service corporation should be allowed to earn enough to provide against all business hazards?

A. A reasonable sum, yes sir; some put it as high as 15%, that is allowing for depreciation.

Q. Who?

A. One of the greatest authorities in the United States.

Q. Who?

A. Prof. Bemis.

Q. Where can you find that?

A. We have got it in Denver.

Q. Before you leave the stand I will read you from some of Prof. Bemis' writings, and you look through them and see if you can find anything of that kind?

A. All right.

216 Q. You have not answered my question yet as to what you would do in case the value of a machine appreciated more than it depreciated; what would you do in a case of that kind?

A. I would still allow the 5% depreciation.

Q. Now you say that item of \$250.00 incorporation fee should be how much?

A. \$1,125.00; fifty cents per thousand on two million and a quarter.

Q. And that in your judgment is what it should be?

A. I ascertained that is what it would actually cost you here in Lincoln.

Q. If you were organizing a company like the complainant in this case would you capitalize for \$2,200,000., would you consider that a necessary or proper way to do?

A. I would if I felt that I was going to build a plant that would require that amount of money inside of a year or eighteen months or two years.

Q. You wouldn't capitalize for more than about what you would expect your plant would amount to in the course of a year or two years?

A. No sir, because I would build wisely, or aim to to at least run three or four years. You cannot always guess or anticipate.

Q. You cannot refer me to any writings of Prof. Bemis in which he makes an allowance of 15% can you?

A. I beg pardon, I said 15% including interest, I specifically said that and the record will show it, or I intended to, and 10% will show depreciation, he divides it in that way.

Q. And what can that be found in?

A. One of his original works. I understand he has repudiated some of those things and has got it at a lower figure, but he still claims 5%, though, which is not excessive.

217 Q. Isn't his 5% based on the receipts from consumers?

A. I do not think so.

Q. Do you know?

A. No sir, I do not, I don't think it is, I think he confines himself the same as other engineers to cost or investment.

Q. Don't you know Alexander H. Humphrey puts it at 5% from the consumers?

A. I don't know that, I wouldn't think he would, most engineers put it the other way. I stated yesterday if it was some other concern like the Standard Oil Company, why then——

Q. You will be here this afternoon?

A. Yes sir.

Redirect examination.

Examined by Mr. ROSE on behalf of complainant:

Q. Would you regard appreciation in values as last suggested by the city attorney, as a financial change or a physical change?

A. I wouldn't regard it as either because you couldn't sell it for any more second handed, it will always depreciate.

Q. A depreciation from wearing out would be a physical change?

A. Yes sir; there would be a depreciation even if you operated it one day, it would be just as good but you couldn't get anywhere near as much, I would say 75% would be right.

Q. Then appreciation, and what you call depreciation, are based upon an entirely different condition?

A. Yes sir.

Q. Would the fact that the price of material fluctuated affect the fact that the plant itself had depreciated, the physical condition?

A. No sir.

218 Q. It would not affect the physical condition?

A. No sir.

Witness excused.

F. W. FRUEAUFF, being produced and duly sworn on behalf of complainant, testified as follows:

Examined by Mr. ROSE on behalf of complainant:

Q. In what capacity are you connected with the Lincoln Gas & Electric Light Company?

A. Second Vice President.

219 Q. Where is your residence?

A. New York City.

Q. What is your general business?

A. I am associated with Henry L. Dogherty, & Company.

Q. In what business are you engaged?

A. In owning and operating electric and gas companies.

Q. What experience have you had in the gas business?

A. A little over eight years in the gas business.

Q. In what department have you been particularly connected with?

A. Largely in the accounting and financial department.

Q. In what places have you served?

A. I served first with the Denver Gas & Electric Company from its organization, first as Secretary, and later on as Vice President and General Manager. I have been connected with this company as Second Vice President for two years past, and also Vice President of the Pueblo Gas Company, and the Lebanon, Pennsylvania, Gas Company.

Q. Have you during your period of connection with this company exercised any supervising control of any character?

A. Well, I would say advisory rather than supervising; that is I made frequent visits to Lincoln and consulted here with Mr. Honeywell, and always keep in touch with Lincoln through Mr. Honeywell.

Q. And have you been connected in any way with the accounting department here?

A. Yes sir, and made frequent examinations of them.

Q. As a sort of an advisory financier?

A. Yes sir.

Q. Would you call yourself a technical engineer?

A. No sir, I cannot.

220 Q. But you are in touch with the engineers everywhere?
A. Yes sir; I have consulted with them in the drafting of the report they now use. I have had something to do with the drafting of that form, and worked with the engineers and accountants on it.

Q. And what have you had to do with the compilation and extensions of your statements, and distribution accounts?

A. I have worked on them from the beginning to the end, I was one of the committee that made that up.

Q. Have you assisted then in compiling printed rules for every item of expense?

A. Yes sir.

Q. From your experience what would you say as to the efficiency of the present system of accounting here?

A. I believe our system of accounting is the most complete in use by any gas or electric light company. We have compared it frequently with other companies.

Q. The most complete device by any person up to this time?

A. Yes sir,—I said I believed it was.

Question withdrawn.

Q. What if any connection do you have with making contracts, and the like of that, for this and other companies?

A. I have had a great deal of that to do in connection with the Denver company, and have consulted with Mr. Honeywell about making contracts here, and also other places.

Q. What is the fact as to whether you keep posted on the price of machinery and supplies?

A. I have tried to do that, and tried to keep a complete record of what we are paying for the supplies for the different purposes.

Q. You keep acquainted with the markets?

A. Yes sir.

221 Q. With the price of supplies in the market?

A. Yes sir, try to do that.

Q. What, if any, acquaintance have you with the price of labor, common labor and skilled labor?

A. We have that same thing to meet as we do in the buying of materials, if there is any change in the price of labor or material we are advised of it.

Q. You keep posted on those things?

A. Yes sir.

Mr. ROSE: We produce Exhibit "1" produced by Mr. Michael E. Malone, concerning which he has been testifying, and embodying the details of his estimate of the replacement values of the complain-

ant's properties, and ask to have it incorporated in the record as a part of the testimony, and give notice that at the hearing we will offer it in evidence. Exhibit "1" found next page. (See exhibits at back.)

Q. Now have you examined Exhibit "1"?

A. Yes sir.

Q. Produced at the hearing here?

A. Yes sir.

Q. Have you checked over the items of cost and expense as estimated in that Exhibit by Mr. Malone?

A. I went over it to the best of my ability, and also offered it to other engineers, and asked for criticisms on it.

Q. Now you may state, assuming that to be a correct exhibit of the company properties making up its manufacturing and distributing plant at Lincoln, what in your opinion would be a fair replacement value of the company's manufacturing and distributing plant?

222 A. That the figures given in this statement are practically correct.

Q. There was identified here by the witness Honeywell Exhibits "A" and "B," Exhibit "B" being the one prepared by Mr. Honeywell, and Exhibit "A" being the one purporting to be prepared by you, have you discovered any mistake in Exhibit "A"?

A. Yes sir. This Exhibit "A" was prepared at my suggestion in New York City. In coming out here and looking it over I discovered there was a mistake made in one of the computations, not in the amount but in the computation, and since coming here I have had that revised, and I would like to withdraw that.

Q. Have you corrected the computation?

A. Yes sir.

Q. And have you a corrected sheet?

A. Yes sir.

Q. Will you produce the corrected sheet?

A. Here it is. (Marked Exhibit A-1.)

Mr. ROSE: The complainant asks that Exhibit "A-1" be substituted for Exhibit "A."

Q. Now which one of these Exhibits, "A" or "A-1" shows the correct computation?

A. Exhibit "A-1" has the correct computation.

Q. In order to save confusion explain the error you discovered and was obliged to correct after coming here?

A. I can better explain first what these tables represent.

Q. Explain the tables first?

A. These tables are an analysis of our business for the year 1906 showing the total number of consumers supplied, and the amount of gas supplied to them, separated into classes, and apportioned against them, and the amount of expense which each class should bear, and a deduction drawn from that showing the consumers who have paid a certain amount, and the expense to secure that amount, and the profits or loss secured from those con-

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sumers separated into classes. We separate first the consumers into classes, and the manufacturing cost to those consumers into classes, the distribution cost, the collection cost, and the general cost, and the total of all costs. Then we have apportioned the distribution cost occasioned by the consumers, and then what we believed was a reasonable return on the fixed investment, and profit. And then we have shown the actual returns, and what return we would have had on our money as a result of the operations for the year 1906. Now the mistake in the first table was in the separation of the general expenses; through an error in the office the general expenses were apportioned in this table on a per thousand basis when they should have been divided among the consumers, in that way it has thrown out the balance of the computation and we will have to change the figures.

Mr. ROSE: Now then with this explanation we withdraw Exhibit "A" and give notice that we will not ask to have it given credit, or offer it in evidence.

Mr. STEWART: The defendants object to the withdrawal of Exhibit "A."

Q. Now is Exhibit "A" a correct table?

A. Yes sir.

Q. And do the classifications correspond in that table with the table made up by Mr. Honeywell, Exhibit "B"?

A. They do. These classifications as far as Exhibit "B" are concerned are embodied in this Exhibit "A-1."

Q. Does Exhibit "B" furnish the primary extension that is carried out on your table?

A. Yes sir, as far as receipts are concerned.

224 Q. You may explain in general how you apportion the items of cost so as to ascertain the cost of maintaining the individual service.

A. In this business we have three general classes of expenses, or expenses that are directly proportional to the amount of gas that is made, such as the amount of oil and coal used, and the amount of retort house repair, and expenses that increase and decrease directly as the amount of gas is made increases or decreases; and then we have the expenses that are proportional to the number of consumers or meters in service, such expenses as the reading of meters, the collection of accounts, the making out of bills, the repairs to the services, and items of that sort that increase or decrease as the number of consumers increase or decrease, and in no way effected by the amount of gas made or sold to those consumers. And then such fixed expenses as are occasioned by the demand and size of the installation required to do the business, such fixed expenses as executive salaries, taxes, and fixed expenses of superintendence, etc., that are fixed neither by the amount of gas sold, or directly by the number of consumers supplied but by the demand, those are proportioned by the demand made on the station. In making up this table I have separated those expenses which are proportional to the amount of gas made and charged that against the class of

consumers who have used that quantity. We have apportioned those expenses that are proportionate to the number of consumers to those consumers, and putting these together we have got the expense of supplying any group of consumers, and having the income from that same group I know whether or not those same consumers have been profitable or unprofitable.

Q. Now have you classified and grouped the consumers?

225 A. We have grouped them into consumers who have used less than 1,000 cubic feet per year; of those we find there was 101 during the year 1906, a loss for operating only of \$627.73, loss per consumer \$6.22.

Q. And how much gas was sold to those 101 consumers, or delivered to those 101 meters in the aggregate?

A. 60,400 cubic feet, for which they paid \$72.48.

Q. What was the cost to the company of supplying those consumers as against the receipts of \$72.48?

A. The cost of supplying those consumers was \$700.21.

Q. What was the actual loss to this company in the year 1906 for supplying those 101 meters?

A. \$627.73, not including any interest or depreciation.

Q. And how should the interest and depreciation be apportioned?

A. It ought to be apportioned a part of it in proportion to the amount of investment those consumers require as consumers, and the amount of investment they require as users of gas.

Q. Have you worked that out?

A. Yes sir.

Q. What additional sum in your opinion would represent the additional cost over and above the loss you have mentioned?

A. \$334.95.

Q. Now what would be the aggregate total loss to the company if you counted the depreciation and interest on capital in?

A. That is depreciation only, the figure I gave you.

Q. Did you aggregate that?

A. I have it aggregated, yes sir; including interest and depreciation the total amount is \$1583.00, or a loss to the company of \$1510.52 to consumers who have used less than 1000 feet of gas during the year.

Q. How much would that be per meter?

226 A. That is a loss of \$14.96 per meter.

Q. Does the table there show how much the loss is per month?

A. No sir, this table is taken over a year's time, not per month. It would be \$1.20 odd cents per month loss, and over, in receipts from them.

Q. Now is the computation you have made there correct?

A. Yes sir, I believe it is.

Q. Does it conform to the classifications you use in your daily system of accounting?

A. Yes sir, it does, it is taken from our daily report,—or monthly report I should say.

Q. Now what is the next classification you exhibit in this table?

A. The next is consumers who used more than 1000 and less than 2000 feet in one year's time, of which there was 143.

Q. What was the aggregate amount of gas in feet delivered to that class of consumers?

A. 206,200.

Q. What percent of the total out-put, or total sales does that represent?

A. I would like to refer to the original tracing, this is a little blurred here. It looks like 300/1000ths of 1%. I can get it from this, it is 13/100 of 1%. The loss for operating only is \$812.15, of \$5.68 per consumer.

Q. What were the aggregate revenues to the company from those 143 meters?

A. \$247.44.

Q. What was the actual cost to the company of furnishing that service, excluding any item of interest or depreciation?

A. \$1059.59.

Q. And what was the actual cost in addition to that to the company, figuring on the interest and depreciation?

227 A. \$2356.03.

Q. Now what was the aggregate cost of service, counting in all elements, of those 143 consumers?

A. That figure I gave includes the cost, interest and depreciation.

Q. What was the aggregate loss to the company for furnishing that service?

A. \$2108.59 to that group.

Q. What is your next classification?

A. Consumers using between 2000 and 3000 feet; there were 134.

Q. Now you can explain in like manner whether the company made a profit or loss upon them?

A. No sir, those consumers were also unprofitable. Loss for operating only, 682.14, per consumer \$5.58.

Q. You may give the details of how you arrive at the fact that it was unprofitable?

A. The cost of supplying those consumers was \$2348.44, for which we received \$398.04, and we had a loss on those consumers of \$1930.40.

Q. What is your next classification?

A. Consumers using between 3000 and 4000 feet, of which there were 120; we received from them \$486.36, the cost of supplying them, \$2197.92, a loss to the company of \$1711.56; loss operating only \$534.02, per consumer \$4.45.

Q. Now you may give the next classification and detail the results to the company on its service furnished to them?

A. The next consumers using between 4000 and 5000 feet per year, of which there were 135. The income was \$793.08, the cost to the company \$2667.59, a loss of \$1874.49. Loss operating only \$470.22, or \$3.49 per consumer.

228 Q. You may take the next group or classification you have, and detail the results to the company financially for furnishing the service to them?

A. To consumers who have used between 5000 and 6000 feet during the year, a total of 164; the revenues amount to \$1075.32, expense of supplying them was \$3,329.21, the loss to the company \$2253.89, loss operating only \$512.63, or \$3.13 per consumer.

Q. What is the next group, and you may also detail the financial experience of the company in furnishing service to them?

A. Consumers between 6000 and 7000 feet, 181 consumers, an income of \$1460.40, cost \$3843.58, a loss of \$2443.18, or \$13.50 per consumer, loss for operating only \$452.68, or \$2.50 per consumer.

Q. How far short of meeting the cost of the service, outside of any item of depreciation or interest, would this class come?

A. The loss on those consumers outside of depreciation and interest \$452.68, or \$2.50 per consumer.

Q. Now you may go on and detail your different classifications and give the actual pecuniary experience of the company without any further interrogatories, as far as you have worked it out?

A. Consumers using between 7000 and 8000, 180 consumers, they used 1,418,000 feet of gas, we were paid \$1702.44, the expense of supplying those consumers, operating only, \$1988.74, loss operating only of \$286.35, loss per consumer \$1.59, including interest and depreciation, cost \$4067.52, loss of \$2365.08, or \$13.06 per consumer.

Between 8000 and 9000 feet, 180 consumers, used 1,520,600 feet of gas, paid \$1824.72, cost of supplying operating only \$2146.36, loss for operating only \$321.64, or \$1.79 per consumer; including interest and depreciation, cost \$4264.39, a loss of \$2439.67, or \$13.04 per consumer.

9000 to 10,000, 187 consumers, used 1,787,000 feet of gas, paid \$2144.52, cost operating only \$2243.10, a loss of \$98.58, or \$.53 per consumer; including interest and depreciation, cost \$4523.93, a loss of \$2379.41, or \$12.72 per consumer.

Between 10,000 and 11,000, 176 consumers, \$1,818,300 feet used, paid \$2181.96, cost for operating only \$2188.18, a loss of \$6.22, or four cents per consumer; cost including interest and depreciation \$4389.39, a loss of \$2207.43, of \$12.54 per consumer.

Consumers using between 11,000 and 12,000 feet per year, 181 consumers, total consumption 2,068,000 feet, for which they paid \$2481.96, cost of operating only \$2362.42, a profit from operating only of \$119.54, or 66 cents per consumer; including interest and depreciation the cost to those consumers was \$4700.68, a loss of \$2218.72, or \$12.76 per consumer.

Consumers using between 12,000 and 13,000 feet of gas, 226 consumers, consumption of 2,592,300 feet, for which they paid \$3110.76, the cost of supplying was for operating only \$2955.30, a profit of \$155.46, from operating only, or 69 cents per consumer. Cost including interest and depreciation for that group, \$5878.55, a loss of \$2767.79, or \$12.75 per consumer loss.

Consumers using between 13,000 and 14,000 feet, 198 consumers, used 2,648,000 cubic feet, and paid \$3178.08, cost for operating only was \$2802.29, a profit of \$375.79, or \$1.90 per consumer profit.

Cost including interest and depreciation \$5538.93, a loss of \$2360.85, or \$11.92 per consumer.

230 Consumers using between 14,000 and 15,000 feet, 186 consumers, used 2,721,000 feet, paid \$3265.80, cost for operating only was \$2764.37, a profit of \$501.43, or \$2.70 per consumer. Including interest and depreciation the cost was \$5397.13, a loss of \$2131.33, or \$11.46 per consumer.

Consumers using between 15,000 and 16,000 feet, 170 consumers, used 2,640,500 cubic feet, paid \$3168.60, operating cost of \$2613.31, profit of \$55.29, or \$3.25 per consumer. Including interest and depreciation the cost was \$5078.60, a loss of \$1910.00, or \$11.24 per consumer.

Consumers using between 16,000 and 17,000 cubic feet, 199 consumers, used 3,281,600 cubic feet, paid \$3166.56, a profit of \$771.36, or \$3.38 per consumer. The cost including interest and depreciation was \$6125.93, a loss of \$2188.01, or \$10.99 per consumer.

Consumers using between 17,000 and 18,000 feet per year, 153—that is one-half of all the consumers used less than 18,000 feet—the consumption in that group was 2,684,000 feet, for which we had an income of \$3221.76, cost for operating only of \$2526.03, a profit of \$695.73,—and a loss at this point on one-half of the consumers, for operating only, that includes the consumers who used from nothing up to 18,000, of \$1630.26. A profit in that particular group of consumers of \$4.55. Cost for interest and depreciation in this group \$4863.72, a loss of \$1641.96, or \$10.73 per consumer.

Consumers using between 18,000 and 19,000, 198, used 3,463,800 feet, paid \$4,155.48, cost for operating only \$3196.40, a profit of \$959.08, a profit of \$5.10 per consumer. Cost including interest and depreciation \$6131.98, a loss of \$1976.50, or \$10.51 per consumer.

231 Consumers using between 19,000 and 20,000, 161, used 3,100,000 feet, paid \$3732.00, cost for operating only \$2819.09, a profit of \$912.91, or \$5.67 per consumer. The cost including interest and depreciation \$5388.92, a loss of \$1656.92, or \$10.29 per consumer.

Consumers using between 20,000 and 21,000, 141 consumers, using a total of 2,868,700 cubic feet, paid \$3,442.44, cost for operating only \$2550.89, a profit of \$891.55, or \$6.31 per consumer. Cost including interest and depreciation \$4857.11, a loss of \$1414.67, or \$10.03 per consumer.

Consumers using between 21,000 and 22,000 feet, 160 consumers, used 3,505,900 cubic feet, paid \$4207.08, cost of operating only \$3036.23, a profit of \$1170.85, profit of \$7.32 per consumer. Including interest and depreciation cost \$5750.21, a loss of \$1543.13, a loss of \$9.64 per consumer.

Consumers using between 22,000 and 23,000, 132 consumers, used 3,169,600 cubic feet, a revenue of \$3803.52, cost for operation only \$2661.54, a profit of \$1141.98, or \$8.65 per consumer. Cost including interest and depreciation was \$5007.61, a loss of \$1204.09, or \$9.42 per consumer.

Consumers using between 23,000 and 24,000 feet, 131 consumers, used 3,055,100 feet, paid \$3642.12, cost for operation only \$2579.07,

a profit of \$1063.05, or \$8.11 per consumer. Cost including interest and depreciation \$4864.77, a loss of \$1222.65, or \$9.33 per consumer.

Consumers using between 24,000 and 25,000, 114 consumers, used 2,786,300 cubic feet, paid \$3343.56, cost for operation only \$2326.29, a profit of \$1017.27, or \$8.92 per consumer.

Cost including interest and depreciation \$4371.32, a loss of \$1027.76, or \$9.71 per consumer.

Consumers using between 25,000 and 26,000, 101, used 2,543,900 cubic feet, paid \$3052.68, cost for operating only being 232 \$2103.46, a profit of \$949.22, or \$9.40 per consumer. Cost including interest and depreciation \$3944.31, a loss of \$891.63, or \$8.83 per consumer.

Consumers using between 26,000 and 27,000 feet, 102 consumers, used 2,691,500 cubic feet, paid \$3,229.80, cost for operation only being \$2,193.60, a profit of \$1036.20, or \$10.16 per consumer. Cost including interest and depreciation \$4099.93, a loss of \$870.13, or \$8.53 per consumer.

Consumers using between 27,000 and 28,000, 101, used 2,772,880, paid \$3327.36, cost for operating only, \$2232.89, a profit for operation only, as I say, \$2232.89, a profit of \$1094.47, or \$10.83 per consumer. Cost including interest and depreciation \$2162.03, a loss of \$834.67, or \$8.26 per consumer.

Consumers using between 28,000 and 29,000, 100 consumers, used 2,856,100 feet, paid \$3427.32, a profit of \$1153.82, a profit of \$11.54 per consumer. Cost including interest and depreciation of \$4236.27, a loss of \$799.05, or \$7.99 per consumer.

Consumers using between 29,000 and 30,000 per year, 97 consumers, used 2,852,500 feet, paid \$3423.00, cost for operating only, \$2251.57, profit of \$1171.43, or \$12.07 per consumer. Cost including interest and depreciation, \$4177.46, a loss of \$754.46, loss \$7.78 per consumer.

Consumers using between 30,000 and 35,000, 375 consumers, used 12,955,600 feet, paid \$14,514.72, cost for operation only, \$9766.00, a profit of \$4748.72, or \$12.66 per consumer. Cost including interest and depreciation \$17,936.07, a loss of \$3421.35, loss \$7.12 per consumer.

Consumers using between 35,000 and 40,000, 301 consumers, used 11,217,900 cubic feet, paid \$13,461.48, cost for operation only, \$8,324.30, a profit of \$5,137.18, or \$17.08 per consumer. Cost including interest and depreciation \$15,213.42, a loss of \$1751.94, or \$5.82 per consumer.

Consumers using between 40,000 and 45,000, 236, used 10,168,600 cubic feet, paid \$12,202.32, cost for operation only of \$7,302.68, a profit of \$4899.64, or \$20.76 per consumer. Cost including interest and depreciation, \$13,234.42, a loss of \$1032.10, or \$4.37 per consumer.

Consumers using between 45,000 and 50,000, 114 consumers, used 5,376,400 cubic feet, cost for operation only, \$3,789.82, a profit of \$2661.86, or \$23.35 per consumer. Cost including interest and depreciation, \$6834.01, a loss of \$382.33, or \$3.35 per consumer loss.

Consumers using between 50,000 and 55,000, 105 consumers, used 5,369,600 cubic feet, cost of operation only, \$3,717.05, a profit of \$2717.05, a profit of \$25.88 per consumer. Cost including interest and depreciation \$6691.39, a loss of \$247.87, or \$2.36 per consumer.

Consumers using between 55,000 and 60,000, 80 consumers, used 4,598,700 cubic feet of gas, cost for operation only \$3126.07, a profit of \$2392.37, or \$29.90 per consumer. Cost including interest and depreciation \$5580.92, a loss of \$6248.00, or 78 cents per consumer.

Consumers using between 60,000 and 65,000, 60 consumers, used 3,745,400 cubic feet, operating cost only of \$2512.12, a profit of \$1982.36, or \$33.04 per consumer. Cost including interest and depreciation, \$4467.63, a profit including interest and depreciation of \$26.85, or 45 cents per consumer. I would like to add there that the profitable line comes after supplying 94.22 per cent of the consumers at a loss.

234 Consumers using between 65,000 and 70,000, 55 consumers, used 3,724,700 cubic feet, cost for operation only, \$2467.27, profit of \$2002.37, or \$36.40 per consumer. Cost including interest and depreciation \$4372.13, a profit of \$97.51, or \$1.77 per consumer.

Consumers using between 70,000 and 75,000 feet, 31 consumers, used 2,246,300 cubic feet, cost for operation only, \$1473.79, a profit of \$1221.77, a profit per consumer of \$39.42. Cost including interest and depreciation \$2604.16, profit \$91.40, or \$2.95 per consumer.

Consumers using between 75,000 and 80,000 feet, 28 consumers, used 2,191,600 cubic feet, costing \$1423.07 for operation only, a profit of \$1206.85, a profit of \$43.09 per consumer. The cost including interest and depreciation \$2506.83, a profit of \$123.09, or \$4.49 per consumer.

Consumers using between 80,000 and 85,000, 30 consumers, used 2,464,000 cubic feet, paid \$2956.80, cost for operation only, \$1590.25, a profit of \$1366.55, or \$45.55 per consumer. Cost including interest and depreciation \$2796.14, or \$160.66 profit, or \$5.35 per consumer.

Consumers using between 85,000 and 90,000, 21 consumers, used 1,843,400 cubic feet, paid \$2212.08, cost for operation only \$1180.18, a profit of \$1031.90, or \$49.14 per meter, or per consumer. Cost including interest and depreciation \$2070.02, a profit of \$142.06, or \$6.77 per consumer.

Consumers using between 90,000 and 95,000, seven consumers, used 647,100 cubic feet, paid \$776.52, cost for operation only, \$411.82, a profit of \$364.70, or \$52.10 per consumer. Cost including interest and depreciation \$721.02, a profit of \$55.50, or \$7.93 profit per consumer.

235 Consumers using between 95,000 and 100,000 feet, 9 consumers, used 880,400 cubic feet, paid \$1056.40, cost for operation expenses only, \$556.83, a profit of \$499.55, or \$59.52 per consumer. Cost including interest and depreciation, \$973.08, or a profit of \$83.40, or \$9.27 per consumer.

Consumers using between 100,000 and 110,000, 12 consumers, used 1,253,400 cubic feet, paid \$1504.08, cost for operation only, \$783.33, a profit of \$716.75, or \$59.73 per consumer. Cost including interest and depreciation, \$1373, a profit of \$131.08, or \$10.93 per consumer.

Consumers using 110,000 to 120,000 feet, 11 consumers, used 1,252,000 cubic feet, paid \$1502.40, cost for operation only \$780.21, profit \$722.19, profit per consumer \$65.65. Cost including interest and depreciation \$1356.82, profit \$145.58, or \$13.23 per consumer.

Consumers using 120,000 to 130,000 feet, 8 consumers, used 1,007,800 cubic feet, paid \$1209.48, cost for operation only \$622.31, profit \$587.17, or \$73.39 per consumer. Cost including interest and depreciation \$1079.24, or \$130.24 profit, or \$16.28 per consumer profit.

Consumers using from 130,000 to 140,000, 16 consumers, used 2,119,100 cubic feet, paid \$2542.92, cost for operation only, \$1303.00, a profit of \$1239.92, or \$77.49 per consumer. Cost including interest and depreciation \$2256.68, a profit of \$286.24, or \$17.88 per consumer.

Consumers using from 140,000 to 150,000, 8 consumers, used 1,155,300 cubic feet, paid \$1386.36, cost for operation only, \$705.49, a profit of \$680.87, profit per consumer \$85.11. Cost including interest and depreciation \$1219.27, profit \$167.09, or \$20.89 per consumer.

Consumers using 150,000 to 160,000, 13 consumers, used 236 1,961,700 cubic feet, paid \$2354.04, cost for operation only, \$1194.24, profit \$1159.80, or \$89.21 per consumer. Cost including interest and depreciation \$2051.64, a profit of \$292.40, or \$22.49 per consumer.

Consumers using from 160,000 to 170,000, 2 consumers, used 334,300 cubic feet, paid \$401.16, cost \$202.10 for operation only, profit \$199.05, profit of \$99.52 per consumer. Cost including interest and depreciation \$348.09, profit \$53.07, or \$26.53 per consumer.

Consumers using 170,000 to 180,000, 3 consumers, used 523,300 feet, paid \$627.95, cost for operation only, \$315.49, a profit of \$312.47, or \$104.16 per consumer. Cost including interest and depreciation \$542.89, profit \$85.70, or \$28.36 per consumer.

Consumers using 180,000 to 190,000, 6 consumers, used 1,109,000 cubic feet, paid \$1,330.80, cost for operation only, \$655.21, profit \$664.59, or \$110.77 per consumer. Cost including interest and depreciation \$1,145.11, profit \$185.69, or \$30.95 per consumer.

Consumers using 200,000 to 300,000, 20 consumers, used 4,690,600 cubic feet, paid \$5,628.72, cost for operation only, \$2,782.32, profit operation only \$2,846.40, profit per consumer \$142.32. Cost including interest and depreciation \$4,762.00, profit \$866.72, or \$43.34 per consumer.

Consumers using 300,000 to 400,000, 11 consumers, used 3,322,000 cubic feet, paid \$3,986.40, cost for operation only \$1,950.14, profit of \$2,036.26, or \$185.11 per consumer. Cost including interest and depreciation \$3,325.34, profit \$661.06, or \$60.09 per consumer.

Consumers using 400,000 to 500,000 cubic feet, 4 consumers, used 1,125,900 feet, paid \$2,071.08, cost for operation only, \$1,001.58, profit \$1,069.50, or \$267.37 per consumer. Cost including interest and depreciation \$1,701.43, profit \$369.65, or \$92.41 per consumer.

Consumers using from 500,000 feet and upwards, 2 consumers, used 1,613,400 feet, paid \$1,936.08, cost for operation only \$924.91, a profit of \$1,011.17, or \$505.59 per consumer. Cost including interest and depreciation \$1,564.38, a profit of \$371.70, or \$185.85 per consumer, or a total of 6,110 consumers used 153,202,600 cubic feet, and paid \$183,843.12, with a cost for operation only of \$127,432.44, with a profit from operation only of \$56,410.68, or \$9.22 9/10 per consumer, and with a cost including interest and depreciation of \$238,873.67, or a loss of \$55,030.55, or \$9.01 per consumer lost on all consumers after deducting interest and depreciation.

Witness excused.

It now being twelve o'clock, noon, an adjournment was taken until Friday afternoon, 2 o'clock P. M., September 27, 1907.

238 Friday, September 27th, 1907, 2 P. M.: hearing proceeded pursuant to adjournment of Thursday September 26th, 1907 with the same appearances.

Mr. FRANK W. FRUEUFF, a witness for the complainant, having been previously duly sworn, was recalled for further examination in chief.

Examination in Chief by Mr. ROSE:

Q. Now Mr. Frueuff you may state what the actual cost is to the Lincoln Gas & Electric Light Company per thousand for the services rendered to the different groups you have mentioned?

						Operating cost only.	Including in- terest & depreciation.	
A. For consumers using less than.....						1000	\$11.59	\$26.22
For consumers using from				1000 to	2000	5.14	11.43	
"	"	"	"	2000 to	3000	3.26	7.09	
"	"	"	"	3000 "	4000	2.52	5.42	
"	"	"	"	4000 "	5000	1.92	4.04	
"	"	"	"	5000 "	6000	1.77	3.72	
"	"	"	"	6000 "	7000	1.59	3.30	
"	"	"	"	7000 "	8000	1.40	2.87	
"	"	"	"	8000 "	9000	1.40	2.80	
"	"	"	"	9000 "	10000	1.26	2.53	
"	"	"	"	10000 "	11000	1.21	2.42	
"	"	"	"	11000 "	12000	1.14	2.27	
"	"	"	"	12000 "	13000	1.14	2.27	
"	"	"	"	13000 "	14000	1.06	2.09	
"	"	"	"	14000 "	15000	1.02	1.98	
"	"	"	"	15000 "	16000	.99	1.93	
"	"	"	"	16000 "	17000	.966	1.91	
"	"	"	"	17000 "	18000	.942	1.81	
"	"	"	"	18000 "	19000	.923	1.77	

						Operating cost only.	Including in- terest & depreciation.
239	"	"	"	"	19000 "	20000	.907 1.89
	"	"	"	"	20000 "	21000	.889 1.70
	"	"	"	"	21000 "	22000	.865 1.64
	"	"	"	"	22000 "	23000	.84 1.58
	"	"	"	"	23000 "	24000	.84 1.58
	"	"	"	"	24000 "	25000	.836 1.57
	"	"	"	"	25000 "	26000	.829 1.55
	"	"	"	"	26000 "	27000	.817 1.53
	"	"	"	"	27000 "	28000	.806 1.50
	"	"	"	"	28000 "	29000	.797 1.48
	"	"	"	"	29000 "	30000	.79 1.47
	"	"	"	"	30000 "	35000	.756 1.39
	"	"	"	"	35000 "	40000	.742 1.36
	"	"	"	"	40000 "	45000	.719 1.30
	"	"	"	"	45000 "	50000	.705 1.27
	"	"	"	"	50000 "	55000	.693 1.25
	"	"	"	"	55000 "	60000	.68 1.22
	"	"	"	"	60000 "	65000	.671 1.20
	"	"	"	"	65000 "	70000	.664 1.18
	"	"	"	"	70000 "	75000	.657 1.16
	"	"	"	"	75000 "	80000	.649 1.14
	"	"	"	"	80000 "	85000	.646 1.13
	"	"	"	"	85000 "	90000	.642 1.13
	"	"	"	"	90000 "	95000	.637 1.11
	"	"	"	"	95000 "	100000	.633 1.11
	"	"	"	"	100000 "	110000	.628 1.09
	"	"	"	"	110000 "	120000	.623 1.08
	"	"	"	"	120000 "	130000	.618 1.07
	"	"	"	"	130000 "	140000	.615 1.06
	"	"	"	"	140000 "	150000	.61 1.06
	"	"	"	"	150000 "	160000	.61 1.05
	"	"	"	"	160000 "	170000	.605 1.04
	"	"	"	"	170000 "	180000	.603 1.04
240	"	"	"	"	180000 "	190000	.601 1.03
	"	"	"	"	190000 "	300000	.593 1.02
	"	"	"	"	300000 "	400000	.588 1.00
	"	"	"	"	400000 "	500000	.581 .998
	In excess of				500000	.573	972

Q. In figuring the cost of interest and depreciation what basis have you figured on?

A. The depreciation is figured on the basis of 5% on the replacement value of the physical property not including real estate.

Q. On what sum?

A. Amounting to \$622,000.

Q. That is exclusive of your estimate of the value of the real estate?

A. Yes sir.

Q. Is that exclusive of the working capital also and cost of organization?

A. It is exclusive of the cost of organization, it includes the working capital.

Q. Does it include the sum of franchises?

A. No sir.

Q. Or the cost of procuring funds?

A. No sir.

Q. What rate of interest did you figure on the investment, your estimate of a fair rate of interest?

A. I put in a fair return there as 8%.

Q. And on what total investment?

A. \$1,000,000.

Q. What do you regard as the fair value of the company's properties including its good will, organization, franchises, and physical properties?

241 A. I believe a low estimate would be to put it at \$1,000,000 that is for the gas department.

Q. Are you experienced also in the electric works?

A. Yes sir.

Q. State whether in your opinion with the uses of gas for lighting it is attended with any greater risks or dangers to health or property than the use of electricity under the same circumstances?

A. No, I don't think it is under the same circumstances.

Q. As president and from supervising the accounts of this company do you know whether there is imposed upon the electric light companies any occupation tax upon their gross receipts?

A. No sir, there is not to my knowledge of it.

Q. Is there in this city established in the electric lighting department any flat meter rate?

A. No sir, it is an optional rate.

Q. Do you know personally whether in this city there are any competing electric companies that come in competition with your company's gas business?

A. There is the Traction Company as far as the electric service here.

Q. In actual practice does the Traction Company give the same rate to large and small consumers?

A. They have made what you call most any kind of a rate, and done most anything to get the business, regardless of the conditions, there is no uniformity about their methods.

Q. How does the competition in the electric lighting filed affect the business of the complainant's gas business?

A. They have taken away from us practically all of the desirable gas lighting business. They have made rates to the long hour users that made them prefer that to gas as a matter of fact, we have only been able to hold on to the short hour business.

Q. How does that affect your patronage with respect to the small consumers or unprofitable business?

242 A. They still stay on our books.

Q. Upon the present patronage of the Lincoln Gas & Elec-

tric Light Company, in its gas department, as shown by the actual experience of the company could it derive enough revenue upon a dollar rate to pay the actual operating expenses of the company?

A. No sir, it could not, by that I mean it couldn't pay these actual operating expenses and set aside enough for the real depreciation of its plant and the returns on its money.

Q. At the rate of \$1.20 collected in 1906, what was the net profit realized to take care of the depreciation and interest on investments basing the values as you have given them on \$1,000,000, gross and the value for depreciation 5% on \$622,000?

A. There was applicable to these two purposes \$56,410.

Q. What percent was that?

A. After deducting 5% for depreciation on the \$622,000, it would give us a return of 2½% on \$1,000,000, on the investment in the works.

Q. What was the average cost to the plant per thousand feet for the month and the distribution of gas alone in the year 1906? as shown by your reports?

A. Practically .8268 cents.

Q. What was the average cost per thousand feet for the manufacturing expenses alone? During that year?

A. .4789 cents for manufacturing cost only.

Q. What was the average cost for distribution alone?

A. .1277 cents.

Q. What other expenses were there?

A. Collection .435, general expenses including taxes .1767 making a total of .8268 cents.

Q. Now do you know whether or not the taxes have been increasing or diminishing during the past few years?

A. They have been increasing.

Q. And has the standard of quality of the gas been increased or diminished?

A. That has been increased.

Q. Is the cost per thousand feet to manufacture the gas affected by the standard of quality of the gas?

A. Yes sir.

Q. What is the present standard of quality that you are required to reach?

A. 18 candle power gas with 625 heat units.

Q. Do you remember how long you have been operating under that standard here?

A. I can't testify definitely but something over a year. Throughout all of the year 1906.

Q. Would that fact alone tend to increase the cost of manufacture here over what it was previously?

A. It has increased it.

Q. What was the previous standard of quality adopted by the municipality?

A. There was no standard at that time, it was based on our belief of what was a reasonable quality.

Q. How has the rate of labor and materials been in the market as compared with previous years?

A. It has been increasing.

Q. How is the price of coal and oil for gas?

A. Those materials have advanced on us.

Q. Have you increased the price of the gas to the consumers to make up for these increased burdens?

A. No sir, on the contrary the selling price of gas has been decreasing.

Q. From your knowledge of this plant what in your opinion would be the aggregate annual sales of gas required in order to permit the company to furnish the service at an average cost of \$1. in the city of Lincoln?

A. I couldn't make a direct answer to that, but I would
244 like to make an explanation.

Q. Well, approximately?

A. Well, if we could sell an average of 40% more gas to our present customers we could sell gas at \$1., if we had to increase our number of consumers and investment as we increased our sales we would almost have to double our sales.

Q. You have been engaged you say in the department of financing gas companies of this character more or less?

A. Yes sir, I have had some knowledge of those things.

Q. Are you acquainted with the basis of earnings that are required by bond purchasers and brokers to place gas securities at par in the market?

A. Yes sir.

Q. In a plant of the character of this one at Lincoln what rate of earnings upon the particular capitalization or bonds offered on the market would be requisite to place the securities at par on the rate of 5% or 6%.

A. At this time it would be between 8% or 9% ordinarily it would be about 7%.

Q. Suppose you are floating a 5% security or bond on the basis of \$1,000,000. on a plant of this character what rate of earnings would the company have to show if these securities would go at par?

A. It would have to be something double the bond interest, something over double, in other words for 5% bonds on \$1,000,000. you would have to show better than 10% earnings on the \$1,000,000.

Q. What is the reason for that?

A. Bond purchasers want to see that the earning power of the plant is sufficient to assure them of their interest, and unless it is double they don't feel that they have that assurance.

Q. How does the fact of natural depreciation affect it?

A. That is one thing they look to, to see that the earnings
245 must be double the bond interest because the depreciation must come out of that at some time in the future, so that when it would come to the time when they have to spend the depreciation fund and haven't that fund and the property is destroyed they want to know that the earnings are setting aside, or that they are setting aside from the earnings a fund to take care of the depreciation when it does come.

Q. You speak of depreciation, is there an item of that character that is taken into account by all operators of gas companies and dealers in gas securities?

A. Yes sir, and that is a very important consideration.

Q. You may explain that item?

A. Depreciation is a fund which must be accumulated not alone to take care of the decay of the property but also to provide for the inevitable inadequacy of the equipment. It is plain that our works are very close to the point of being inadequate and to get an additional amount of business we have to make an additional investment to take care of the new business and we have to make provision for that future time or we wouldn't earn our interest; the same way with the mains leading out of our works into the streets, they must be taken up and larger ones put in.

Q. How does that affect the value of the equipment that has been replaced?

A. That is largely worthless whether it has been in a long or a short time. Then there is a third element, a portion of the equipment becomes obsolete, as for example that Springer water gas set, it has been replaced by something up to date.

Q. Can you give an example of specific inadequacy?

A. Yes, we have that in the case of our gas holder, we have taken a big chance in having a larger holder?

Q. What is the chance?

A. The demand or consumption being so great that we cannot manufacture enough to keep a supply ahead, for in one hour
246 they draw out more than we can make they are out of gas and we are out of service, when that was built it was very much larger than was required, it will soon have to be replaced through decay and we will have to put in a much larger one it is worn out through decay and through smallness too.

Q. Is there any way an engineer can figure to avoid displacement of material from this cause?

A. No sir, if he figured too small he would be criticised at once.

Q. Why?

A. For not having allowed sufficient capacity to do the present business. If he looks too far ahead he incurs an expense for interest that the owners would naturally object to, they don't want a greater dead investment. In the Western states it is hard for an engineer to know how big a town he has to provide for 20 years ahead, the best he can do is to make a reasonable estimate of the probable growth and as soon as you reach that point you have to enlarge again, always having something ahead of what they then need.

Q. Would you say there is any known way of anticipating the particular demand upon any particular plant?

A. No sir, there is no way to determine that.

Q. From your experience what would you say as to whether that item of depreciation should be over and above the outlay for the ordinary repairs and maintenance?

A. Yes sir, it must be. The repairs and maintenance would not have any future. The point we have in mind in setting something aside for depreciation is to take care of that in the future, repairs keep our equipment where it should be while depreciation is the laying aside of a sum for the future.

Q. In the actual practice in the business of the company at Lin-

coln is the item of depreciation charged in to the operating cost?

A. No sir.

247 Q. How would you estimate what would be a reasonable sum for the item of depreciation at the Lincoln plant per year?

A. My honest belief is that there should be something in excess of 6% on the physical investment, but in making up our estimate here we put that in at 5%; In a growing town like Lincoln I believe you must figure that our plant from inadequacy has got to be practically rebuilt and enlarged in not to exceed 15 years from the time it was put in; a good part of the mains will not last to exceed 15 years.

Q. Do you know anything about the conditions of the soil here as to being alkali?

A. Only from hearsay.

Q. What is your information?

A. I understand that it is not a desirable soil for cast iron pipes.

Q. Are you acquainted in any degree with the value of this company's out-standing bonds at present, or as to whether the company's 5% bonds have a market?

A. There is no market for them at this time. We endeavored to market some of the 5% bonds still in the treasury for the purpose of meeting improvements we are now making and we couldn't get offers that we felt justified in selling at that price around 70 to 75 and it wouldn't warrant the company in doing that and rather than put out the securities at that price we authorized the issuance of some 7% notes believing that possibly a little later on local conditions would be more favorable and money conditions would be more favorable when we could get them sold at a reasonable figure. We have had to sell a part of these 7% notes at a discount, but haven't been able to sell the balance of the notes secured by the bonds, two bonds being deposited for each note.

Q. In financing a company prudently of the size of the Lincoln Gas & Electric Light Company, what in your opinion is the
248 least net rate of interest any company can procure on the investment of capital for such an enterprise?

A. Not less than the equivalent of 7 1-2% to 8%.

Q. Now, in case bonds are floated, long term bonds, say for 40 years or less, at the rate of 5%, what percent of those bonds ordinarily would be required to be used in placing the bonds and in procuring the money for such an enterprise?

A. I would say something better than 20%.

Q. Is a perpetual franchise in a town of this size regarded as of any value in the market?

A. Yes sir.

Q. State whether or not it is customary at this time, here or elsewhere, in this country, to give perpetual franchises?

A. No sir, it is not, unfortunately both for the investor and for the community.

Q. Would you be acquainted with what would be the fair value of such a franchise in a city like Lincoln if there was a perpetual franchise for the use of the streets to manufacture and sell gas in the municipality?

A. I don't believe I could give any very competent testimony on that; my belief would be that a right of that sort ought to have an earning power of \$75,000 and be able to earn at that much better rate. \$75,000 to \$100,000 possibly.

Q. Would there be any advantages in the way of cheapening the rate to a community to have such a franchise?

A. Very decided.

Q. Explain what that advantage would be?

A. There is a good opportunity, with our securities outstanding for that long a time and our not being required to take them up at the end of 25 or 30 years, the rate to be charged in order to bring a return on the money would not have to be so great.

Q. Do you regard the gas business as a hazardous business?

A. Yes sir, very.

249 Q. In what particular?

A. Well the gas business, in common with the electric light business is that of a so-called public utility, by that we are required to supply any and all consumers that may apply to us we are different from a merchant in that respect, we can't choose the people we do business with, and in doing that we take more or less hazard in our dealings with them. We put a gas service into practically everyones home and take the chances of their thoroughly understanding its operation, for example you may have an explosion, it may be due to a defect on the company's side of the proposition or it may due to inexperience on the consumers side of the proposition and we are held either legally or morally responsible for it, which is an element of danger. Then the fact that we are subjected to regulation by the State or City authorities makes it hazardous. In this present litigation we feel that we are now being put to an expense here through the passage of this ordinance that is working a hardship on us, knowing the conditions as we know them, to be subjected to an ordinance of this sort; it destroys the belief of the security holders in our securities and that is another hazard we have had to meet.

Q. Now does a company of this character require any additional working capital to that invested in this manufacturing and distributing plant?

A. Yes sir, not only in cash but in materials and equipment ahead before we can do any business.

Q. Explain the necessity for that?

A. Assuming that the gas works is built before we can operate it we must have a stock of gas making materials ahead; we must also have some appliances ahead to take care of new orders either in the extension of the service, putting in stoves and setting meters. We

250 must have cash in the bank to meet bills presented for which we may get a return later on. We must also have money ahead to meet pay-rolls, to pay the employes before we receive any payment back from our consumers, practically all the business we do in one month we pay for in advance of receiving any payment in return for it.

Q. What is the average term of credit extended to your consumers?

A. It would be something like 40 to 45 days, we read our meters from the 25th to the end of the month and the bills are payable from the 1st to the 6th of the next month, assuming that a meter was read on the 25th of one month and the bill was not paid until the 6th of the next month it would be a period of from 30 to 40 days.

Q. What do you think would be a reasonable requirement of the complainant as to working capital?

A. We believed that \$60,000 practically was the working capital, many companies I find on investigation carry more than that as a working capital.

Q. What are the conditions here as favoring the low cost of production, are the conditions here locally favorable or unfavorable to the manufacture of gas at a low cost?

A. They are unfavorable.

Q. Detail in what respects?

A. It largely comes from the fact that we are a long distance from the supply of our gas coal which is a special kind that comes from Pennsylvania and the freight on it is a tremendous item. The cost of oil too is higher than it is in many cities; the price of labor is as high as in many larger cities; the cost of living is supposed to be high. It is in the same way with piping, the cost of pipe for our purposes here, we pay a high price for that due to our being a considerable distance from the foundrys.

Q. From your knowledge of this plant would you say it was a reasonably efficient plant, that is in the economy of manufacture and distribution?

251 A. Yes sir, we have watched that very closely, we have our economies as low as we could get them and maintain a good service.

Q. How would the number of miles,—state how the number of miles of mains would affect the economy in distribution of gas?

A. The more gas we can sell per mile of mains the less our cost for distribution and the less our investment we have in our distribution system which reduces our interest charges. In Lincoln the number of services per mile isn't as great as in Denver, besides the length of the individual services is greater, due to the width of the streets and walks.

Q. To what distance here does this company run its service lines at its own cost?

A. To the lot line.

Q. I said in our bill that it was to the curb line, that is a mistake is it?

A. Yes sir.

Q. Do you know whether or not for any considerable portion of time the services were run further than to the lot line?

A. There was a time they were run to the meter in the house.

Q. Do you know how much of an investment the company has in services than run clear into the houses?

A. I can't answer that question.

Q. Is it any considerable sum?

A. Yes sir.

Q. Is there anything else you think of I should have mentioned?

A. No sir.

Q. You may explain how the flat meter rate system of charges affects the ability of this company to get new business in the gas line?

A. By analyzing our accounts here in Lincoln we find that 99% of all our consumers require an investment in a uniform 5 light meter, which means that they have a demand of not to exceed 50 feet per consumer per hour, so that all of our cost for distribution investment and for plant investment is not regulated by the amount of gas made, it must be apportioned uniformly over all of these consumers; that is, we have very few large consumers who make any demand upon us larger than the others, all our consumers are practically small consumers, so that we carry a large fixed cost with them per consumer while the gas used per consumer is a small amount, the fixed cost for them don't increase or decrease as the amount of gas used increases or decreases. If the company could sell additional gas to these consumers the average cost would be reduced, while if the company continues to take on only small consumers the expenses increase as the income increases.

Q. How does the flat meter rate affect your ability to get large consumers?

A. We have got to carry so many little consumers who lose us money that we can't make a concession to the large consumers to attract that class of business, and the other firms selling light or fuel which we want to compete with can by selling them at a less price get the business. We can make a rate which will first bring us our fixed cost and then a reasonable price on such cost as the amount they use that can attract this business by competing with the other firms selling light or fuel.

Q. Is there any other way known to you by which you can hope to touch the field of industrial consumers, who would be large consumers?

A. We know of no other way that would be either equitable or legal.

Q. What I mean is, is there any other way by which you could take on that business except by offering them lower rates?

A. No sir. I might answer and say that if we said we will sell this gas at 60 cents per thousand and then if we said to the other man, the small consumer, we will sell this gas to you at \$1.20 per thousand that wouldn't be equitable or legal as far as stood in the open.

Q. Now this ordinance here in controversy restricts the meter charge and any consumer under any circumstances to 25c per month, what do you say as to whether in the case of a consumer using 300 feet or less per month that charge would be equal to the cost of the service rendered by the company in Lincoln?

A. It would not, it would not pay the expense of maintaining the service of reading his meter, making out his bill and collecting it.

Q. Would it allow any sum whatever on account of depreciation or interest?

A. No sir, it would not.

Q. What in your opinion would be a reasonable or adequate service charge in such case to cover the cost to the company of the service rendered?

A. A consumer demanding a 5 light meter and its equivalent connections we ought to have not less than \$15. per year to cover interest and depreciation and the fixed expenses outside of any gas that he has used.

Q. Can the service be furnished by the company for any less sum?

A. No sir, it cannot.

Q. Does the gas business of the company in the fuel line come in competition with any other fuel?

A. Yes sir, it competes with the coal dealers, and dealers in wood, oil and gasoline.

Q. Do the coal dealers have any occupation tax in proportion to their gross receipts imposed upon them?

A. No, sir, they don't if I understand the ordinance here.

Q. Now in respect to what are the particular hazards of this line of business, have you enumerated all of that character?

A. No sir, I did not, I have a good many reasons why the business is hazardous if I may refer to some notes I have here.

Q. You may detail anything you regard as particularly
254 hazardous to the gas business?

A. The variation or the likelihood of the increase in the cost of materials, the prices of oil, coal and labor may be advanced on us while we are compelled to sell our gas at a given rate per thousand feet, while with the ordinary merchant if his materials cost him more money he expects in return to advance his selling price to his customer, while with us the material and cost may increase but our income is limited.

The likelihood of hard times or stringency is another thing, our investment in a city is fixed and our money is there when we have a panic or hard times the merchant if he finds that he isn't going to have as good a year he don't keep as much money in his business as we do ours, ours is in there and must yield a fixed rate of interest and we can't decrease it as the times may change. The fact that we pay a percentage of our income as an occupation tax while others we compete with don't is a hardship on us. We must include in our cost something that will cover this percentage that we must turn back into the city, while our competitors don't have this expense.

Another thing that works a hardship on us is the likelihood of a change in the population center in a city, we might put our large mains into one part of the city while the city grows in another direction and the people living on these streets move into another part of the city or district, we must then put our mains and services there while the other lies idle; in every city you will find a dead section, a section that was once a residence section that is now covered with railroad yards and wholesale establishments while the gas company's money is still in the ground and we have had to double our investment.

The likelihood of competition is another element, if a natural gas district should be opened up near Lincoln we would either have to compromise with the owners of those fields and buy gas from them and try to work up a business in time that would pay interest on our investment or go into a war with them and possibly
255 lose our investment.

Another gas company might come in here and compel us to make terms with them and sell gas at a price that would not yield a return on our money.

In many cases our gas mains are laid to conform to a present grade of the street, later on a section is laid out and graded or the grade changed and we are compelled to take up and re-lay our mains, that must be an increase in our investment without any additional returns from our consumers using off of that main.

We are always subject to liability from accidents occurring while men are at work on the streets, a passerby may fall in a ditch or be overcome with gas while we are making connections, we have all of those hazards to take into consideration.

Unfair taxation is one of the hazards we have to look out for; in many instances we feel that we are taxed out of proportion on the taxes on our investment from looking at it from the standard of physical value, or earning power or receipts.

The fact of new regulations as to our service is another element of hazard we have had to meet here in Lincoln, the standard of gas we had here formerly which is permitted throughout the country, new regulations considerably increasing our cost and decreasing our revenues, that is something we are subject to at any time.

Each year we are called upon to make investments in extensions of our mains and services into growing sections of the city which requires a constant addition of capital to the property whether the money rates are high or low we have to make these extensions, as our returns are practically uniform we have an element of uncertainty here whether those things will pay or not.

We have been at times subject to some newspaper criticism which has made our investments hazardous.

The fact that the street railway system in the same city may
256 not be properly taking care of its currents may subject us to a considerable amount of electrolysis which may eat into our mains and services that is something that we never know to what extent it may come about.

The fact that a good part of our work in our distributing system is done by piece-meal tends to add to our cost. If we knew how large Lincoln was going to be we could lay out all the mains and services on one street at one time and it would decrease our cost of laying the mains. Where we lay out a block at one time 100 feet at another, or 200 feet at another it makes the cost run up on us.

Then we are always subject to what you might call the caprice of the public in which one form of light or fuel is more popular at one time than another may leave us with an idle investment on our hands. Some years ago the bent flame gas burner was supplanted by electric light and later on the engineers perfected the

Welsback mantel and we have since recovered a good part of that business and other forms are coming on and we see a tendency which way the lighting will go.

Electricity is another hazard that we have to contend with, that covers about all I think of now.

Cross-examination by Mr. STEWART:

Q. In a city like Lincoln a franchise, where you are compelled to do business under such adverse circumstances, isn't of much value is it?

A. Yes, it is bound to have a value, in connection with our property, without the property although it would cost us \$600,000. it would be worthless.

Q. But you said the value of the franchise depended on the earning capacity of the plant?

A. That wasn't just my answer.

Q. But that would be a fact?

257 A. Yes sir.

Q. Under the present rate you have put into effect here in the city you have stated you could earn how much on your investment?

A. $2\frac{1}{2}\%$.

Q. Now you wouldn't consider that a very good business, very valuable?

A. No sir.

Q. You wouldn't call it worth \$100,000?

A. You would necessarily have to have a value or you couldn't tell the cost of your plant.

Q. Suppose you had the money and was going to buy a plant would you give \$100,000. for the chance of making $2\frac{1}{2}\%$ on your money?

A. No sir, but I would have a chance to make more than that on it or I wouldn't buy it, in time the business could be worked up.

Q. Even under such adverse conditions as there is here in Lincoln you could in the future work it up?

A. I believe so, if we can get normal conditions we can.

Q. So you wouldn't place a value of \$75,000. or \$100,000. on the conditions of today but as you hope to have in the future?

A. No sir, I put that as it is now, it has to be as it is now or there is no value here, whether it returns a low or a high rate it has some value.

Q. And a hope as long as they were looking to the future and expecting to do better in the future it isn't too much for a franchise where they get only $2\frac{1}{2}\%$ back on their money?

A. It wouldn't be a big price, no sir.

Q. In fact it would be hard to sell it wouldn't it?

A. No, I don't think so.

Q. Even where you could only make $2\frac{1}{2}\%$?

A. No, if we could show a future.

Q. What do you mean by raising the rates is the possibility of developing a business?

A. We could never see where we could raise the rates.

258 Q. Isn't the business here pretty well developed?

A. No sir, in my opinion it is not; we haven't touched a field it is necessary for us to touch.

Q. That is the industrial field?

A. Yes sir.

Q. Outside of that it has been?

A. The fuel end has been developed, the lighting end has gone off and decreased.

Q. What is the out-put of fuel as compared to the light approximately?

A. It is all through one meter so I couldn't give the exact figures, but my opinion is that it is $\frac{2}{3}$ fuel.

Q. The value of your franchise in this city would depend **not on** anything the plant ever has done or anything it is doing **now but** on the opportunity to develop in the future?

A. Largely on the future of the business, it has done better than it is doing now.

Q. When?

A. In 1905 we did better than in 1906.

Q. What was the cost of gas to you in 1905, the manufacturing price?

A. It cost us an average of .734 cents.

Q. That is manufacturing and distribution?

A. That is all operating.

Q. Give just the manufacturing?

A. .418 cents as against .4989 in 1906.

Q. What made that difference?

A. The higher cost of materials and the increase of standards.

Q. The increase of the standard had more to do with it than the materials hadn't it?

A. I can't tell from memory, there are two factors in there.

Q. But it is a fact that the price of gas in 1906 increased about 6c per thousand over the cost in 1905, and how much did the distributing cost increase?

A. .018 cents.

259 Q. Did I understand you to say that there was no uniformity in the charges for electric energy in the city for lighting purposes?

A. No, I don't consider there is any uniformity, it has been a case of bargaining in most cases it is what can we get for the service, you make terms with each individual consumer, especially the large consumers.

Q. And you do this because you have to meet competition of the other company?

A. Yes sir.

Q. Do you consider that a desirable condition to have exist here?

A. The fact of the competition do you mean?

Q. Yes sir?

A. No sir, I think it is undesirable.

Q. Do you think it desirable and would you consider it desirable

to be allowed to make the same terms for gas that you have to supply?

A. It would be if we could make the same terms for gas under like conditions, taking into consideration the demand of the consumer, if we could make a rate in proportion to the demand it would be desirable for him because we could give him what he wants at a better price.

Q. Do you think it would be desirable for your company to make rates and bargains with each individual profitable consumer without regard to what you might charge other profitable consumers?

A. No sir, in the long run I think that would be a short-sighted policy.

Q. But that is what is being done?

A. Yes sir.

Q. But it wouldn't be fair to the consumers?

A. No sir. Under like conditions there ought to be a uniformity of rates.

Q. And you don't ask for anything different from that?

A. No sir.

260 Q. In studying the cost of gas for operating expenses to the consumer who takes less than 1000 feet in footing up what you consider it costs the company how do you fix his proportion of the operating expenses, how do you arrive at that in your tabulation?

A. We take the manufacturing expenses and apportion to him the percentage he has used of the gas made.

Q. You mean by the manufacturing expenses the manufacturing cost of the gas?

A. The cost of the gas yes sir, suppose it cost us \$60,000. to make the gas and he used one per cent of the gas made we apportion 1% of the gas made.

Q. Suppose it cost you 50c per thousand to make the gas and he uses 500 feet you would charge him with 25c for that gas?

A. Yes sir. Then we apportion to him his share of the fixed expenses.

Q. How do you do that?

A. We have 6110 consumers, it costs a given amount to read the meters, make out the bills, and collect the bills, and so forth and we apportion him his percent of that.

Q. Do you charge him the same proportion of the fixed expenses that you would a consumer who used 100,000 cubic feet, is that true?

A. Yes sir, we have done that because 99% of our consumers require the same investment for them, the same size of service connections and meters, and that is what I meant earlier in the testimony that we had such uniformity, small consumers and practically no large ones.

Q. Would you think it would be fair to the man who takes 1000 feet of gas per annum to contribute the same amount for supervision and officers' salaries with the man who took 300,000 feet?

A. But there is less than 1% of the very big consumers.

Q. Well, take 100,000 feet?

A. No sir.

261 Q. Or 50,000 feet?

A. Yes sir. The truth is the small consumers would make more of that expense of salaries and so forth than the large ones.

Q. It would take more, the fixed charges for salaries, for managing officers, engineers, and heads of departments would cost more to look after the manufacture of 200,000 feet of gas ordinarily than it would for 100,000 feet?

A. The manufacturing expense is proportioned to the amount made.

Q. I am speaking about the general charges that you have entered up in your distribution expenses, is it right that the small consumer of 1000 feet of gas should pay as much of that as the man who consumes 50,000 or 100,000 feet?

A. I wouldn't say 100,000 but that man using 50,000 feet uses his gas through the same size connections and requires no more investment on our part than the man using 1000 feet, yes sir.

Q. That is taking 100 consumers, or 1000 consumers each consuming 50,000 feet or upwards per annum you contend that they should pay no more of these general expenses such as supervision, management costs of heads of departments and so forth that you have taxed up to the distributing department than 100 or 10000 consumers who only use 1000 feet per annum? Isn't that the logic of your position?

A. No sir, the dividing line comes when they increase their demand upon us, as long as they are all making the same demand those are all apportioned the same.

Q. I understand in making up this tabulation you charged up where a consumer used less than 1000 feet per annum the same amount as one who used 100,000 cubic feet?

A. Yes sir, but I qualified that by saying that there was less than 1% of our consumers outside of that small class.

Q. Now this item of unaccounted for or lost gas which amounted to about 12c. per thousand cubic feet.

A. That was 8c.

Q. Is this tabulation which you have made based on the business of 1906?

262 A. Yes sir.

Q. What was the total cost of manufacturing gas that year to the company? Per thousand feet?

A. .4789 cents.

Q. What was the lowest price you gave in your table that you could furnish gas for?

A. For operating only or including interest and depreciation?

Q. Operating only per thousand feet?

A. To consumers using in excess of 500,000 feet the cost is .573 cents.

Q. And 8c. of that would have to be added to the manufacturing cost to make up for the gas lost?

A. That would be a portion of the fixed expenses.

Q. And that would bring it up to .5589 cents per thousand that would be the cost to the company of the gas sold?

A. Yes sir, that would include their proportion.

Q. .5589 cents includes the cost at the plant and the gas lost?

A. There would be a difference there of 2c.

Q. There would be a difference between .5589 cents and .573 cents or something less than 2c.

A. $1\frac{1}{2}$ cents yes sir.

Q. Now is that all of the other distributing expenses you require these large consumers to pay and all of their expenses?

A. That is all that is apportioned to them, on the basis of consuming more than 500,000 feet at $1\frac{1}{2}$ c. would be \$75.

Q. That is, you require him to pay $1\frac{1}{2}$ c. per thousand cubic feet only, whereas the average cost of manufacturing and distribution which you call operating expenses is how much?

A. .8268 cents, the average of all.

Q. I only want the average distributing cost?

A. I don't understand that the average would be that same amount .4789 plus the 8c.

Q. What else makes up the .82 cents?

263 A. The portion of collection expenses, and the portion of general expenses, and the portion of distribution expenses not including that of leakage or loss not accounted for gas.

Q. Do you think the small consumer should pay any larger percentage of the leakage than the large consumer?

A. No sir.

Q. Have you figured out so he will in that statement?

A. The leakage is practically fixed by the demand; any number of connections on 1000 feet of gas it would work out very much in excess, per dollar of investment it wouldn't.

Q. Do you charge the consumer who takes but 1000 feet of gas proportionately a larger percentage of the leakage than the man who takes 500,000 feet?

A. In proportion to what?

Q. In proportion to the amount taken, proportionately?

A. Yes sir.

Q. How much, what is the difference on that as between the two customers?

A. I will have to correct my testimony, the leakage is in proportion to the amount of gas sold while the balance of the expense is in proportion to the capacity or demand, we have a percent of leakage the same as we have a percent of manufacturing expense per thousand sold.

Q. How do you apportion the general expenses, I mean the item called general expenses?

A. That is apportioned to our demand in proportion to the number of consumers.

Q. That is you divide the total general expenses by the number of consumers and require each consumer to stand his proportion?

A. Yes sir, on the assumption that the demand of each consumer is the same, but there is that difference of 1% of those large consumers.

264 Q. You wouldn't contend that the demand of each consumer that uses a few thousand feet of gas is as expensive to you in every way as the consumer who may use 50,000 or 100,000 feet of gas?

A. It is was supplied through a 5 light meter yes sir, when we get to the point where a larger meter is used I would say no.

Q. What is the limit of a 5 light meter?

A. It is rated 10 feet to the light, a 5 light meter is supposed to run 50 feet of gas per hour.

Q. How much will run through that in a year?

A. There are 8760 hours in a year with 50 feet per hour would make 438,000 cubic feet, of possible use assuming they are run throughout the year.

Q. Would you say that the group of consumers that consume from 100,000 to 400,000 feet are no more expensive to you than the few who take over 500,000 feet?

A. If their demand is greater they are more expensive.

Q. What do you mean by that?

A. In the investment we have to make. If this man using 100,000 feet used that for one hour of the day we would have to make an investment of a given amount, if he used that in a total of 10 hours a day we would have sold in each case the same amount of gas, but in one case we have the expense of mains, service, moving the plant, and so forth, the fact that one man uses 100,000 feet in one hour and another man uses 100,000 feet in ten hours don't mean that the tax upon us is the same it depends on what we have to invest to sell each man. The group that would take 100,000 to 400,000 feet we have very little of that and that is what we call a desirable load factor.

Q. If these consumers required a greater capacity would you think they should be charged in proportion?

A. Yes sir.

Q. But you haven't figured that out?

A. No because they are less than 1%.

265 Q. Wouldn't the same rule obtain only in a less degree as to the consumers that take 50,000 to 100,000 cubic feet per annum?

A. Assuming that their demand was greater than the usual demand, yes.

Q. The demand would be greater if they took more gas?

A. No sir, we might have one consumer who had twice as great a demand as another who used 100,000 feet.

Q. There might be cases of that kind but the general tendency is for the largest consumer to tax you- plant the same as the smallest consumer?

A. No sir, take the instance of the newspapers their consumption isn't such a great demand but it is the constant use.

Q. Generally speaking the little consumer don't tax your plant or your capacity like the larger ones?

A. As a general proposition no sir.

Q. This rate business has got to be settled on the general proposition hasn't it?

A. Yes sir.

Q. You wouldn't contend that that system of tabulation there ought to be actually put into effect as a reasonable and just basis for regulating the price of gas in this city?

A. No sir, we wouldn't think of asking that the small consumer be expected to pay more money after he had made his investment in range, pipes, and fixtures, we would draw from that conclusion that a readjustment was necessary.

Q. That ought to be taken into consideration?

A. Yes sir. I wouldn't recommend that be crowded on to the consumers, but it is a condition that we are up against in starting out on straight meter rates, I wouldn't force them to that for a minute, I wanted to show the inaccuracy of the present plan.

Q. You are satisfied that in putting in this rate into effect that this rate you have put into effect you didn't do just the
266 right thing?

A. Yes sir, we followed the past practice instead of good judgment and the real conditions.

Q. When you reduced your rate the last time you only made the unprofitable consumers more unprofitable?

A. Yes sir, to enable people who wanted a large amount of gas to get it at a price they could afford to use it. You might reduce the price to the large consumer and not to the small one and confine it to that, but just as a straight reduction on the thousand rate would not let us open to a reduction to all, it is a question whether you couldn't come in and say I will pay you 80 cents per thousand the same as the Star or the Journal Company, but if you come to us and pay us an amount to take care of these fixed expenses then we could give the reduced rate.

Q. You think there ought to be a minimum charge?

A. No, it is a charge depending on the fixed expenses, it is a charge outside entirely of any gas consumed.

Q. It is a minimum charge based on the fact that you have an investment there that you are entitled to an income on?

A. It is a constant charge taking care of a constant expense.

Q. It is based on the fact that you have an investment there that you are entitled to receive an income on and are entitled to have a fund to keep it in repair and maintain it even though they take but very little gas?

A. Yes sir.

Q. As long as they are using it at all you are entitled to pay for those items of income on your investment and in maintaining that service?

A. Yes sir, for we now have on our books consumers which cost us \$2. for 1000 feet of gas and he has to pay us \$1.20 for it which is a loss to us of 80¢ and if we should reduce our rate to \$1. per
267 thousand then the loss on him would be \$1.80 per thousand.

Q. That is just what you did do?

A. Yes sir, although this matter of the change of rates has been advocated here for sometime.

Q. About how much have you invested in the service and meter of a consumer's property?

A. On the usual demand the investment in the service, meter and connections, not including the investment in house connections for ranges it is \$26.50.

Q. Where they have connections for lighting?

A. I say that is for light, fuel would be more.

Q. And you think you are entitled to 7% or 8% on that?

A. Yes, in addition to the 5% depreciation.

Q. It isn't your contention that you can put all consumers on an exact equality?

A. No sir, we hope to approach equity, we never can get to that.

Q. You will always make some more money out of some consumers than others?

A. Yes sir, we always have to carry certain consumers on our books as unprofitable consumers.

Q. Your contention is that in the regulation of rates it ought to be so brought about as to leave as few unprofitable consumers as possible?

A. Yes sir.

Q. You never expect to eliminate all of them?

A. No sir.

Q. You couldn't do that if you had absolute control of the business yourself?

A. No, you would put yourself in such an unfavorable light in the community that it would be harmful to your business. Suppose you would say you pay \$2. a month for what you use, some would pay it, but it would drive much business away from us, if we could get a right to absolute equity that is what we ought to have.

268 Q. This matter of depreciation you say it is desirable for a company to have a fund to take care of the replacement of the plant when a time comes when it practically all goes to pieces and has to be replaced, is that your idea of depreciation?

A. Yes sir, by laying away something to take care of the day when they have to rebuild the plant.

Q. This company has never adopted that policy has it?

A. Not in a definite way, but on the other hand such funds as they had in excess of paying the interest on their outstanding securities has been re-invested in the plant.

Q. It has not been taken out?

A. No sir.

Q. But those re-investments have been charged to operating expenses haven't they?

A. No sir, possibly I can illustrate that, we have a certain amount of bonds out for investments made in the property, we have certain other property which is represented by what our books show as over and above operating expenses and interest, that is if we are putting in a machine this year and we have \$10,000. in excess of paying the bond interest instead of selling bonds to get that \$10,000. that money has gone back into the plant in the money in excess of the bond interest and has gone back into additions, so that a re-appraisement would show the property on which no bonds are outstanding.

Q. Where you use \$10,000. from your earnings for instance to take up a 2 inch main and put down a 4 inch main you simply charge to your construction or capital account the additional value of the 4 inch main don't you?

A. I am not thoroughly posted here.

Q. You heard Mr. Honeywell testify to that didn't you?

A. Yes, but I understand there has been but very little of that done. In a short time there will have to be a great deal of it. The mains from the works up town will have to be replaced by
269 larger mains. In Denver we have it to do, though we are not charging that out of the operating expenses, we are taking that out of the reserve, it is due to inadequacy and not to repairs.

Q. You never have, however, provided any depreciation fund in connection with this plant?

A. Not by so marking it on our books but by putting back into the property whatever we had left after paying bond interest.

Q. Well, where you put a new machine in not to take the place of another but as an addition how would you charge that?

A. That would go to the property account as an asset.

Q. As an addition?

A. Yes sir.

Q. Where you put a new machine in to take the place of a similar one how do you charge that?

A. That would have to come out of this reserve.

Q. Up to this time all these items such as I have mentioned last have been taken care of by your operating expense account?

A. Yes sir, but there has been nothing of that kind that I know of except a few small lines of mains.

Q. Or re-filling of your benches?

A. That is a running expense that is always taken out that way.

Q. So that really there hasn't been very much depreciation in this plant up to this time, what you call depreciation proper?

A. No, what I call depreciation proper is after you have gone a good many years it goes all out at one time.

Q. That sort of a thing might apply to your plant more forcibly than to your mains you can't say that your mains were liable to give out all at once they having been put in some last year and some 25 years ago?

A. Not unless they have trouble from electrolysis, but any inadequacy in the mains is the main fact.

Q. But that don't all come at once?

A. Any inadequacy is something that comes in big
270 chunks, if we could not get adequate pressure that would all come at once. If there was any inadequacy in one block that wouldn't be a very big item but it might extend for several blocks.

Q. You don't mean to say there ever would come a time, or that there is a probability that you would have all your mains to replace at the same time.

A. No.

Q. That is hardly probable in the case of your plant?

A. Yes, it is more likely, from the history of the business usually the company finds anything inadequate they simply abandon it, so they build new works rather than put in new machinery in the old works.

Q. If you keep your plant efficient as this has been kept such a thing as that cannot occur?

A. Yes, through inadequacy it would.

Q. If you had an efficient plant even if it was inadequate you wouldn't have to discard all your present plant would you?

A. No, but it is better to put up entirely new works and operate an all new plant rather than to operate the old or run two plants.

Q. You could re-install it couldn't you?

A. We will soon have to increase our capacity at the works if we put in another water gas machine we will have to put it on other ground as it is best for us to get a sufficiently large enough one, in this one building because greater efficiency can be maintained by using one big machine.

Q. If the small machine is an efficient and up to date machine what will you do with it?

A. It lays idle there for reserve.

Q. You have to have something for reserve always?

A. Yes, we practically have to have something for reserve, our works are nearly inadequate.

271 Q. I am not speaking about this particular plant?

A. I- Denver we have bought ground to build entirely new works believing that we are now up to our capacity and we are getting a new site because we can operate one plant cheaper than we can operate two.

Q. All these items have been taken care of in this plant up to this time other than the items you have entered up in what you call your property or construction account haven't they?

A. As far as I know the running expenses have gone into the operating cost, but there has been practically no replacement either due to decay or inadequacy.

Q. How long has the plant been running?

A. I am only speaking from the time I have been familiar with, from 1901 before that I can't say except by hearsay.

Q. It was an old plant when you got it system mains, pipes and so forth, was it when you became acquainted with it?

A. Yes sir.

Q. It had as a matter of fact been in operation for 10 years?

A. I think it was.

Q. And longer than that wasn't it?

A. It was constructed in 1891 I think.

Q. It was reconstructed it is said in 1890 or 1891?

A. They started new they done the work there then.

Q. They started new but they didn't take up all the old mains did they, they didn't take up any mains, they are the same old mains?

A. No, I think not, they had very little mains at that time.

Q. The city was smaller and required less?

A. Yes sir.

Q. I think you said that the cost of the gas coal and oil was higher here than in most places?

A. I believe it is, it is higher than in other cities that I know of.

272 Q. Isn't the oil pretty cheap here compared with other cities?

A. It is cheaper than in Denver, but higher than it is in the East.

Q. That is the difference between here and the East?

A. I have had occasion to look into that recently in connection with Cincinnati Companies and the companies at Milwaukee and Detroit they were paying practically 3¢ per gallon for oil.

Q. And you pay .042 cents?

A. .041 last year I think, something over 4¢.

Q. Do you know anything about the price of oil at Sioux City and Des Moines?

A. No sir, I do not.

Q. Nor coal?

A. No sir, I might say that the Sioux City and Des Moines companies are owned by the same people as Omaha being the United Gas & Improvement Company. At the time our gas was \$1.20 they were charging \$1.30 and \$1.05 in Sioux City and Des Moines so there was some marked difference.

Q. They have been agitating the matter of reducing the rate to \$1 too?

A. When they charged \$1.30 at Des Moines they were charging \$1.20 at Omaha.

Q. The charge in different cities don't depend altogether on the cost of manufacturing and distributing it does it?

A. It does with like owners.

Q. Don't like owners charge as much as they think the traffic will bear if not interfered with?

A. I can't say what other- do, I know the people I am with figure only a reasonable return and they have voluntarily made a reduction where they found their income was running by their reasonable return.

Q. Is that the reason they reduced it in this city?

A. I can't say, I don't know.

273 Q. You have to have larger mains haven't you to supply numerous large consumers than to supply numerous small consumers?

A. Assuming that the demand is larger yes.

Q. What do you mean by that?

A. If a man used 1000 feet in one hour his demand is greater on us than if he uses that 1000 feet over 10 hours. The amount of the hourly demand fixes the size of the main.

Q. Take a demand in a residence district that demand comes in at about the same hours?

A. Yes sir.

Q. So that the mains to supply numerous,—what we will call large residence consumers—will need to be larger than to supply small residence consumers?

A. Yes sir.

Q. And that would be true all the way along the line of your plant as to the amount of labor employed and manufacturing at the plant?

A. It don't make any difference whether you are supplying your

gas to one consumer or to 100 it depends on the amount of gas you are making.

Q. But in the total it would, it would take more expensive apparatus to supply a large group of large residence consumers than an equally large group of small residence consumers?

A. A larger demand means a larger investment yes sir.

Q. * * *

Redirect examination by Mr. ROSE:

Q. In making up these reports exhibits "C" and "D" was there any purpose in having them duplicate one six months?

A. You mean in having the year ending in June and ending in December?

Q. Yes sir.

A. No, I did that not knowing what period of our history was to be taken into the controversy the ordinance was past- in 1906 and we thought we better make it for the year ending the first of July as a verification, we thought there might be objection if we showed just the 1906 results.

Witness excused.

Mr. ROSE: Solicitors for the complainant and defendant both agreeing orally and ask that their agreement be taken in the record, that the signature of the witnesses to the testimony given by them be waived.

The hour of adjournment having arrived an adjournment is taken to September 28th, 1907, at 10 a. m.

275 In the Circuit Court of the United States for the District of Nebraska, Lincoln Division.

THE LINCOLN GAS & ELECTRIC LIGHT COMPANY, Complainant,
vs.

CITY OF LINCOLN, NEBRASKA; FRANCES W. BROWN, Mayor, et al.,
Defendants.

UNITED STATES OF AMERICA,

District of Nebraska, Lincoln Division, ss:

I, Myron E. Wheeler, Examiner, hereby certify that the foregoing testimony in the above entitled case was taken before me at the times and places in the record thereof indicated; that before testifying each of the several witnesses was by me severally and duly sworn to tell the truth, the whole truth and nothing but the truth; that said testimony was taken in shorthand, and by me transcribed, and by consent of parties the signature of the respective parties to their extended depositions was waived.

MYRON E. WHEELER,
U. S. Examiner.

Ch'gs.....	\$72.75
Binding.....	.50
Total.....	73.25

Recapitulation.

Cost of Replacing Gas Plant at Lincoln, Nebr.

Page.

1	Coal gas apparatus	\$80,605.00
2	Water gas apparatus.....	31,503.00
3	Cost of buildings.....	37,286.00
3	Real Estate.....	7,200.00
4	Street mains in dirt streets, including permits	90,578.00
5	" " " paved " " "	130,027.00
6	Gas Services, including repaving and permits.....	107,106.82
6	Gas meters in use.....	36,282.90
6	Meter connections	13,184.00
6	Piping for gas ranges	16,500.00
		<hr/>
Engineering cost on above at 2½ %		550,272.72
		<hr/>
Engineering cost on above at 2½ %		13,756.82
		<hr/>
Contingent expense on \$5,430,272.76 not including real estate or engineering cost at 2½ %		564,029.54
		<hr/>
		631,913.63
7	Working capital.....	59,146.88
		<hr/>
		691,060.51
8	Cost of organizing company	24,950.00
Interest on \$631,913.63 during erection (1 yr.)		31,550.00
		<hr/>
		747,560.51
Cost of obtaining money 20 %		149,512.10
		<hr/>
		897,072.61
Interest on \$149,512.10 at 5 %		7,500.00
		<hr/>
Value of franchise.....		904,572.61

Coal Gas Apparatus.

3	recuperative benches of 6's complete, with economizer..	\$8950.00
3½	depth " " without economizer	8480.00
1	#6 Root's coal gas exhauster and engine equipped with Bristol Recording Gauge	1475.00
1	#3 P. & A. tar extractor with by-pass connections.....	755.00
1	Tower scrubber 66" x 30' with 16" by-pass connections.....	925.00
1	Water tube condenser 54" x 25' with 16" by-pass connections	1060.00
1	Standard rotary scrubber and by-pass connections	2650.00

1 Coal gas meter 5' x 5' with by-pass connections	1050.00
1 Set horizontal water cooled condensers.....	550.00
1 Ammonia circulating pump.....	\$75.00
Motor for same	150.00
	<hr/>
	225.00
1 Root's economizer blower and engine Piping system Gauges, etc.....	875.00
132 ft. 10" Foul main from benches to purifiers.....	260.00
4 25' x 21' x 5' purifiers, center seal, carriage, connec- tions, etc.....	18960.00
1 10' x 10' McDonald Station Meter and Hinman Drum with by-pass connections	4750.00
1 77' 16" Foul main from purifiers to holder Material.....	\$410.00
Labor.....	430.00
	<hr/>
	840.00
1 205000 ft. 2 lift gas holder	18000.00
1 Brick tank for same Cap stone.....	\$180.00
312000 at \$12.50 per M.....	3900.00
5550 yds. excavation at 40c.	2220.00
	<hr/>
	6300.00
1 20" Connolly Street Main governor and connections...	1100.00
1 Booster outfit and motor with connections	525.00
4 6000 Gallon iron shell storage tank for tar at \$300.00..	1200.00
1 5000 " " " " " " " " }	900.00
1 8700 " brick " " " " " " " " }	
1 Gas Calorimeter	150.00
1 Bar photometer.....	350.00
Laboratory apparatus and supplies	275.00
	<hr/>
	\$80605.00

Water Gas Apparatus.

1 6' 6" Western Gas Construction Co., water gas set com- plete and connections	\$8437.00
1 Operating floor for above	600.00
1 6' Springer water gas set complete	6720.00
1 #10 Buffalo forge blower including piping	300.00
1 35 H. P. 1045 R. P. M. DC Motor and auto starter.....	535.00
1 15 H. P. 1200 R. P. M. reserve blower and motor	350.00
1 50000 cu. ft. relief holder.....	6500.00
1 Brick tank for same 10' deep 50' diameter	2875.00
1 MacKenzie exhaustor and engine with by-pass connec- tions.....	725.00
325' of 12" foul main from gas machine to gas holder and from holder to purifiers.....	720.00
1 12500-gallon oil storage tank.....	375.00
1 10000 " " " " " " " "	325.00

250' of $\frac{3}{4}$ " and 250' of 2" pipe (boxed) from tanks to gas machines.....		137.00
1 Oil pump	\$50.00	
1 Governor.....	37.50	
1 Heater.....	55.00	
1 Filter.....	20.00	
1 Meter.....	41.00	
Oil spray system and drilling apparatus.....		203.50
1 Tar separator.....	\$166.50	165.00
Circulating system.....	55.00	
2' pumps.....	72.00	
Pipe connections.....	17.00	
1 150 H. P. Boiler erected complete with stack.....		310.50
		2,225.00

\$31503.00

280

Real Estate & Buildings.

8 Lots.....		\$7200.00
Water Gas Gen. House 32' x 48' x 37' high 12" walls....		5200.00
Coal gas retort house 70' x 33' x 37' high 12" walls.....		6750.00
Purifying house - engine, condensing and meter rooms		
Laboratory 177' x 36' - 30'		14550.00
Boiler room.....		1250.00
Coal sheds 23'-6"- x 110'-11"		2475.00
Oil house 35'-23'-6" x 10'		1335.00
Street Main Governor House 12'-20'-10'.....		488.00
Two thirds cost of barn		333.00
One-half cost of blacksmith shop.....		165.00
Sewage system and settling tank comprising		
1100' of 10" x 10" sewer box	\$391.00	
800' of 6" sewer tile.....	240.00	
Water system comprising 1894' of $\frac{3}{4}$ " to 2" galvanized pipe and labor	460.00	631.00
Meter	40.00	
Steam heating system, comprising 6410' of $1\frac{1}{2}$ " and 2" pipe		500.00
Electric and Gas Lighting Systems		1600.00
Steam pipe system for coal and water gas.....		269.00
Track scales		650.00
Wagon scales		750.00
Wagon scales		250.00
Platform scales.....		90.00

\$44486.00

281 *Cost of Replacing Gas Main Distribution System in Dirt Streets
at Lincoln, Nebraska.*

Size.	No. miles.	Cost per mile.	Total cost.
2"	30.79	\$1320	\$40643.00
4"	6.17	3150	19436.00
6"	1.25	4660	5825.00
8" .....	.23	6426	1478.00
10"	1.04	8750	9100.00
12" .....	.43	11480	4936.00
16" .....	.18	15400	2772.00
20" .....	.26	23800	6188.00
	<hr/> 40.35		<hr/> \$90378.00
Plus 400 permits @ 50c.....			200.00
Total			<hr/> \$90578.00

Cost of Replacing Gas Main Distribution in Paved Streets, Including Repaving, at Lincoln, Nebraska.

Size.	Wooden block.			Two-course brick.			Asphalt.		
	No. miles.	Cost per mile.	Total cost.	No. miles.	Cost per mile.	Total cost.	No. miles.	Cost per mile.	Total cost.
2" .....	.568	\$2790.	1585.	3.636	\$3383.	\$12300.	4.250	\$5431.	\$23082.
4"				4.800	5213.	25022.	4.070	7261.	29552.
6" .....	.075	6130.	460.	2.080	6723.	12982.		8771.	3924.
8" .....	.150	7896.	1184.	.530	8489.	4499.			
10" .....				.220	10813.	2377.	.530	12861.	6816.
12" .....				.300	13543.	406.			
16" .....				.060	17463.	1048.			
20"									
	.793		\$3229.	11.626		\$63291.	9.300		\$63397.

Wooden Block.....	\$3229.00
Two-Course Brick.....	63291.00
Asphalt	63397.00
Plus 220 permits @ 50¢	110.00
Total cost Replacing Mains Under Pavements.....	130027.00

283 Gas Services, Meters, Meter Connections, and Piping for Ranges.

3597	Services in dirt streets @ \$13.50.....	\$48559.50
72	“ under wooden block pavement @ \$19.66..	1451.52
1074	“ “ two course brick pavement.....	25668.50
854	“ “ asphalt	31427.20

 107,106.82

Gas Meter Connections.

6304	Meter connections @ \$2.25.....	13184.00
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Piping for Gas Ranges.

5500	ranges @ \$3.00.....	16500.00
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Gas Meters.

2951-3	light gas meters @ 5.00.....	14755.00
3221-5	“ “ “ @ 6.25.....	20131.00
48-10	“ “ “ @ 7.50.....	360.00
17-20	“ “ “ @ 10.60.....	180.20
7-30	“ “ “ @ 14.10.....	98.70
13-45	“ “ “ @ 20.00.....	260.00
5-60	“ “ “ @ 27.00.....	135.00
5-100	“ “ “ @ 45.00.....	225.00
2-150	“ “ “ @ 69.00.....	138.00

 36282.90

284

Working Capital.

Coal stock (90) days 3300 tons @ \$6.00.....	\$19800.00
Purifying Material 4000 bu. .40.....	1600.00
C. I. Pipe stock 6" 500' = 7½ tons @ \$42.00.....	291.38
" " " 4" 1000' = 10 " 42.00.....	398.50
Wro-t Iron Pipe, fittings, brass goods, etc.....	1500.00
Gas ranges, Water heaters, Atmos. Heaters, Ind. Appli- ances	7500.00
Oil Stock, 15000 glas. Minimum capacity @ 4½c.	630.00
120,-3, 5, and 10 light meters @ 7.00	840.00
1 Meter prover	130.00
Shop tools, street dept. tools and plant tools.....	750.00
1840 tons coke, avg. @ \$5.00.....	9200.00
40,000 gallons tar @ 2c.....	800.00
Filling at gas plant.....	1300.00
2 adding machines @ \$225.00.....	\$450.00
1 addressograph	250.00
2 typewriting machines	150.00
Office furniture and fixtures	2710.00
	<hr/>
	3560.00
Two-thirds chargeable to gas department.....	2372.00
10 horses @ \$140.00.....	1400.00
9 wagons @ \$65.00	455.00
10 sets harness	180.00
Payrolls and purchase of supplies ..	10000.00
	<hr/>
	\$59146.88

285

Cost of Organizing Company.

Engraving 300 Bonds (\$100-500 and \$1000).	\$2500.00
Engraving stock certificates....	500.00
Trustee's fees, certifying bonds.....	1250.00
Trustee's annual fee.....	250.00
Registrar and transfer agent.....	200.00
Filing certificates of inc. Sec. of State.....	250.00
Attorney's fees (examinations of titles, prep. of contracts, preparation of certificates of incorporation, mortgage, bonds and organization matters).....	5000.00
Attorney's fees, first year.....	5000.00
Incorporation expense in obtaining subscriptions for bonds	10000.00
	<hr/>
	\$24950.00

Consumption per year less than—	Consumers.				Cubic feet sold.					Revenue.			Mfg. costs.	Dist. costs.	Costs.	Per cons.	Profit & loss, M. & D.			Cost coll.	Cost mfg. + dist. + coll.		Profit & loss M., D. & C.			Costs gen.	Costs mfg., dist.
	No.	%	Agg. No.	% Total.	No.	%	% Total.	Agg. No.	Per cons.	Amount.	Agg. amount.	Per cons.	4789 per M.	0862 per M + 1016 per Cons.	Mfg. & dist.	M. & D. costs.	Amount.	Agg. am't.	Per cons.	1.095 per cons.	Amount.	Per cons.	Amount.	Agg. am't.	Per cons.	4.454 per cons.	Amount.
1,000	101	1.65	101	1.65	60,400	.03	.03	60,400	600	72.48	72.48	.717	28.92	110.84	139.76	1.384	67.58	67.28	.667	110.60	250.36	2.479	177.88	177.88	1.762	449.85	700.21
2,000	143	2.35	244	4.10	206,200	.13	.16	266,600	1,440	247.44	319.92	1.731	98.74	167.35	266.09	1.861	18.65	85.93	.131	156.59	422.68	2.956	175.24	353.12	1.226	636.91	1,059.59
3,000	134	2.20	378	1.34	331,700	.21	.37	598,300	2,480	398.04	717.96	2.970	158.84	168.76	327.60	2.445	70.44	15.49	.474	155.73	483.33	3.605	85.29	438.41	.635	596.85	1,080.18
4,000	120	1.95	498	8.15	405,300	.27	.64	1,003,000	3,380	486.36	1,204.32	4.053	194.07	160.45	354.52	2.954	131.84	116.35	1.099	131.40	485.92	4.050	.44	437.97	.004	554.46	1,020.38
5,000	135	2.21	633	10.36	660,900	.43	1.07	1,664,500	4,890	793.08	1,997.40	5.873	316.49	198.17	514.66	3.812	278.42	394.77	2.061	147.82	662.48	4.907	130.60	307.37	.966	601.32	1,203.80
6,000	164	2.69	797	13.65	896,100	.59	1.66	2,560,600	5,460	1,075.32	3,072.72	6.536	429.11	248.79	677.90	4.133	397.42	792.19	2.423	179.58	857.48	5.228	217.84	89.53	1.328	730.47	1,587.95
7,000	181	2.95	978	16.00	1,167,000	.76	2.44	3,727,600	6,450	1,400.40	4,473.12	7.733	558.82	289.91	848.73	4.688	551.67	1,343.86	3.045	198.20	1,046.93	5.784	353.47	263.94	1.949	806.15	1,853.08
8,000	180	2.95	1158	18.95	1,418,700	.92	3.34	5,146,300	7,880	1,702.44	6,175.56	9.459	679.42	310.57	989.99	5.500	712.45	2,056.31	3.959	197.10	1,187.09	6.592	515.35	779.29	2.867	801.70	1,988.79
9,000	180	2.95	1338	21.90	1,520,600	.99	4.33	6,666,900	8,450	1,824.72	8,000.28	10.147	728.20	419.36	1,147.56	6.375	677.16	2,733.47	3.772	197.10	1,344.66	7.470	1,259.35	1,259.35	2.677	801.70	2,146.36
10,000	187	3.05	1525	24.95	1,787,100	1.16	5.49	8,454,000	9,560	2,144.52	10,144.80	11.468	855.81	349.64	1,205.45	6.446	939.07	3,672.54	5.022	204.77	1,410.22	7.540	734.30	1,903.65	3.928	832.88	2,243.10
11,000	176	2.90	1701	27.85	1,818,300	1.18	6.67	10,273,200	10,330	2,181.96	12,326.76	12.433	870.73	340.82	1,211.55	6.848	970.41	4,642.95	5.585	192.72	1,404.27	8.012	777.69	2,771.34	4.421	783.91	2,188.18
12,000	181	2.95	1882	30.80	2,068,300	1.35	8.02	12,340,600	11,430	2,481.96	14,808.72	13.713	990.47	367.60	1,358.07	7.502	1,123.89	5,766.84	6.211	198.20	1,556.27	8.599	925.69	3,697.03	5.114	806.15	2,362.42
13,000	226	3.71	2108	34.51	2,592,300	1.68	9.70	14,432,900	11,470	3,110.76	17,919.48	13.765	1,241.40	459.83	1,701.23	7.527	1,409.53	7,176.37	6.238	247.47	1,948.70	8.624	1,162.06	4,859.09	5.141	1,006.60	2,955.30
14,000	198	3.25	2306	37.76	2,648,400	1.73	11.43	17,581,300	13,370	3,178.08	21,097.56	16.050	1,268.20	435.38	1,703.58	8.603	1,474.50	8,650.87	7.447	216.81	1,920.39	9.699	1,257.69	6,116.78	6.351	881.90	2,802.29
15,000	186	3.05	2492	40.81	2,721,500	1.78	13.21	20,302,800	14,630	3,265.80	24,363.36	17.558	1,303.10	429.15	1,732.25	9.313	1,533.55	10,184.42	6.245	203.67	1,935.92	10.408	1,329.88	7,446.66	7.150	828.45	2,764.37
16,000	170	2.79	2662	43.60	2,640,500	1.72	14.93	22,943,300	15,530	3,168.60	27,531.96	18.639	1,264.50	405.41	1,669.91	9.822	1,498.69	11,683.11	8.817	186.15	1,856.06	10.918	1,312.54	8,759.20	7.721	757.25	2,613.31
17,000	199	3.23	2861	46.83	3,281,600	2.15	17.08	26,224,900	16,490	3,937.92	31,469.88	19.788	1,571.30	491.01	2,062.31	10.363	1,875.61	13,558.72	9.425	217.90	2,280.21	11.459	1,657.71	10,416.91	8.329	886.35	3,166.56
18,000	153	2.51	3014	49.34	2,684,800	1.75	18.83	28,909,700	17,550	3,221.76	34,691.64	21.657	1,285.60	391.43	1,677.03	10.959	1,544.73	15,103.45	10.098	167.53	1,844.56	12.055	1,377.20	11,794.11	9.002	681.47	2,526.03
19,000	188	3.06	3202	52.40	3,462,900	2.26	21.09	32,372,600	18,420	4,155.48	38,847.12	22.103	1,658.10	495.13	2,153.23	11.453	2,002.25	15,103.70	10.650	205.86	2,359.09	12.549	1,796.39	13,590.50	9.554	837.31	3,196.40
20,000	161	2.64	3363	55.04	3,110,000	2.04	23.13	35,480,600	19,320	3,732.00	42,579.12	23.180	1,489.20	436.47	1,925.67	11.960	1,806.33	18,912.03	11.220	176.30	2,101.97	13.055	1,630.03	15,220.53	10.125	717.12	2,819.09
21,000	141	2.31	3504	57.35	2,868,700	1.88	25.01	38,351,300	20,350	3,442.44	46,021.56	24.413	1,373.70	394.74	1,768.44	12.543	1,674.00	20,586.03	11.870	154.40	1,922.84	13.637	1,519.60	16,740.13	10.776	628.05	2,560.89
22,000	160	2.62	3664	59.97	3,505,900	2.29	27.30	41,857,200	21,940	4,207.08	50,228.64	26.233	1,678.80	469.55	2,148.35	13.428	2,058.73	22,644.76	12.865	175.20	2,323.55	14.522	1,883.53	18,623.66	11.771	712.68	3,036.23
23,000	132	2.16	3794	62.13	3,169,600	2.07	29.37	45,026,800	24,010	3,803.52	54,032.16	28.813	1,517.80	411.27	1,929.07	14.613	1,874.45	24,519.21	14.20	144.53	2,073.60	15.707	1,729.92	20,353.58	13.106	587.94	2,661.54
24,000	131	2.16	3927	64.29	3,035,100	1.98	31.35	48,061,900	23,170	3,642.12	57,674.28	27.803	1,453.50	398.63	1,852.13	14.138	1,789.90	26,309.20	13.67	143.44	1,995.57	15.234	1,646.55	22,000.13	12.569	583.50	2,579.07
25,000	114	1.87	4041	66.16	2,786,300	1.82	33.17	50,848,200	24,440	3,343.56	61,017.84	29.327	1,334.30	359.42	1,693.72	14.857	1,649.84	27,950.04	14.47	124.82	1,818.54	15.933	1,525.02	23,525.15	13.374	507.75	2,326.29
26,000	101	1.65	4142	67.81	2,543,900	1.66	34.83	53,392,100	25,190	3,052.68	64,070.52	30.225	1,218.10	324.91	1,543.01	15.278	1,509.67	29,468.71	14.95	110.60	1,653.61	16.373	1,399.07	24,924.22	13.852	449.85	2,103.46
27,000	102	1.65	4244	69.46	2,691,500	1.76	36.59	56,083,600	26,390	3,229.80	67,300.32	31.667	1,288.90	338.69	1,627.59	15.956	1,602.21	31,070.92	15.71	111.69	1,739.28	17.053	1,490.52	26,414.74	14.614	454.32	2,193.60
28,000	101	1.65	4345	71.11	2,772,800	1.81	38.40	58,856,400	27,460	3,327.36	70,627.68	32.945	1,327.80	344.64	1,672.44	16.557	1,654.92	32,725.84	16.39	110.60	1,783.04	17.653	1,544.32	27,959.66	15.292	449.85	2,232.89
29,000	100	1.64	4445	72.75	2,856,100	1.87	40.27	61,712,500	28,560	3,427.32	74,055.60	34.273	1,367.80	350.80	1,718.60	17.186	1,708.72	34,434.56	17.00	109.50	1,828.10	18.281	1,599.22	29,558.28	15.992	445.40	2,273.50
30,000	97	1.58	4542	74.33	2,852,500	1.86	42.13	64,565,000	29,400	3,423.00	77,478.00	35.288	1,366.00	347.34	1,713.34	17.663	1,709.66	36,144.22	17.63	106.21	1,819.55	18.757	1,603.45	31,161.78	16.531	432.02	2,251.57
35,000	375	6.14	4917	80.47	12,905,600	7.90	50.03	76,660,000	34,460	14,514.72	91,992.72	38.438	6,180.50	1,504.66	7,685.16	20.492	6,829.56	42,973.78	20.49	410.64	8,065.80	21.588	6,418.92	37,580.65	16.850	1,670.20	9,766.00
40,000	301	4.93	5218	85.40	11,217,900	7.32	57.35	87,878,500	37,470	13,461.48	105,454.20	44.720	5,372.25	1,281.85	6,654.10	22.104	6,807.38	49,781.16	22.62	329.60	6,983.70	23.20	6,477.78	44,058.43	21.520	1,340.60	8,324.30
45,000	236	3.87	5454	89.27	10,168,600	6.63	63.98	98,047,100	43,090	12,202.32	117,656.52	51.700	4,869.74	1,123.37	5,993.11	25.393	6,209.21	55,990.37	26.31	258.42	6,251.53	26.49	5,950.79	50,009.22	25.210	1,051.15	7,302.68
50,000	114	1.87	5568	91.14	5,376,400	3.51	67.49	103,423,500	47,160	6,451.68	124,108.20	56.597	2,574.60	582.64	3,157.24	27.695	3,294.44	59,284.81	28.90	124.83	3,282.07	28.79	3,169.61	53,178.83	27.807	507.75	3,789.82
55,000	105	1.77	5673	92.91	5,369,600	3.50	70.99	108,793,100	51,130	6,443.52	130,551.72	61.363	2,571.20	572.63	3,143.83	29.943	3,299.69	62,584.50	31.42	114.98	3,258.81	31.04	3,184.71	56,363.54	30.326	467.66	3,726.47
60,000	80	1.31	5753	94.22	4,598,700	3.00	73.99	113,391,800	57,480	5,518.44	136,070.16	68.983	2,202.00	480.16	2,682.16	33.528	2,836.28	65,420.78	35.46	87.60	2,769.76	34.62	2,748.68	59,112.22	34.361	356.31	3,126.07
65,000	60	.98	5813	95.20	3,745,400	2.45	76.44	117,																			

LINCOLN GAS & ELECTRIC LIGHT COMPANY. GAS REVENUE & EXPENSE STATISTICS, YEAR ENDING DEC. 31, 1906.

Profit & loss M., D. & C.			Costs gen.	Costsmfg.,dist.,coll.&gen.		Profit & loss M., D., C. & G.			5% Dep.	Costs M.,D.,C.,G.and Dep.		Profit & loss M., D., C., G. and dep.			2½% Int.	Costs M., D., C., G., dep. & int.		Profit & loss M., D., C., G., dep., int.			8% Int.	Cost M.,D.,C.,G.,dep.,int.		Profit & loss M., D., C., G., dep., int.			T
Amount.	Agg. am't.	Per cons.	4.454 per cons.	Amount.	Per cons.	Amount.	Agg. am't.	Per cons.	3.273 1 cons + 0.125 1 M sold.	Amount.	Per cons.	Amount.	Agg. am't.	Per cons.	1 65 1 cons. .0987 1 M.	Amount.	Per cons.	Amount.	Agg. am't.	Per cons.	5.237 1 cons .3133 1 M.	Amount.	Per cons.	Amount.	Agg. am't.	Per cons.	
177.88	177.88	1.762	449.85	700.21	6.93	627.73	627.73	6.22	334.95	1,035.16	10.25	962.68	962.68	9.53	172.61	1,207.77	11.96	1,135.29	1,135.29	11.24	547.84	1,583.00	15.68	1,510.52	1,510.52	14.96	
175.24	253.12	1.226	636.91	1,059.59	7.41	812.15	1,439.88	5.68	482.97	1,542.56	10.78	1,295.12	2,257.80	9.06	256.30	1,798.86	12.58	1,551.42	2,686.71	10.85	813.47	2,556.63	16.47	2,108.59	3,619.11	14.75	
85.29	438.41	.635	596.85	1,080.18	8.05	682.14	2,122.02	6.58	462.62	1,542.80	11.51	1,144.76	3,402.56	8.54	253.84	1,796.64	13.41	1,398.60	4,085.31	10.40	805.64	2,348.44	17.52	1,950.40	5,569.51	14.55	
.44	437.97	.004	554.46	1,020.38	8.50	534.02	2,656.04	4.45	422.16	1,442.54	12.02	956.18	4,358.74	7.97	238.00	1,680.54	14.00	1,194.18	5,279.49	9.95	755.38	2,197.92	18.32	1,711.56	7,281.07	14.26	
130.60	307.37	.906	601.32	1,203.80	9.36	470.72	3,126.76	3.49	489.75	1,753.55	12.90	960.47	5,319.21	7.12	287.96	2,041.51	15.12	1,248.43	6,527.92	9.25	914.02	2,667.57	19.76	1,874.49	9,155.56	13.88	
217.84	89.53	1.328	730.47	1,587.95	9.98	512.63	3,639.39	3.13	601.71	2,189.66	13.35	1,114.34	6,433.55	6.79	359.04	2,548.70	15.54	1,473.38	8,001.30	8.99	1,139.55	3,329.21	20.30	2,253.89	11,409.45	13.74	
353.47	263.94	1.949	806.15	1,853.08	10.24	452.68	4,092.07	2.50	677.00	2,530.08	13.98	1,129.68	7,563.23	6.24	413.83	2,943.91	16.26	1,543.51	9,544.81	8.53	1,313.50	3,843.58	21.23	2,443.18	13,852.63	13.50	
515.35	779.29	2.867	801.70	1,988.79	11.05	286.35	4,378.42	1.59	691.96	2,680.75	14.89	978.31	8,541.54	5.43	437.03	3,117.78	17.32	1,415.34	10,960.15	7.86	1,386.77	4,067.52	22.60	2,365.08	16,217.71	13.06	
480.06	1,259.35	2.677	801.70	2,146.36	11.92	321.64	4,700.06	1.79	699.34	2,845.70	15.81	1,020.98	9,562.52	5.67	447.09	3,292.79	18.29	1,468.07	12,428.22	8.16	1,418.69	4,264.39	23.69	2,439.67	18,657.38	13.54	
734.30	1,993.65	3.928	832.88	2,243.10	12.00	98.58	4,798.64	.53	741.63	2,984.73	15.96	840.21	10,402.73	4.49	484.94	3,469.67	18.55	1,325.15	13,753.37	7.09	1,539.20	4,523.93	24.19	2,379.41	21,036.75	12.72	
777.69	2,771.34	4.421	783.91	2,188.18	12.43	6.22	4,804.86	.04	707.89	2,896.05	16.46	714.09	11,116.82	4.06	469.88	3,365.93	19.12	1,183.97	14,937.34	6.73	1,493.34	4,380.39	24.94	2,207.43	23,244.22	12.54	
925.69	3,697.03	5.114	806.15	2,362.42	13.05	119.54	4,685.32	.66	742.36	3,104.78	17.39	622.82	11,739.64	3.44	502.78	3,607.56	19.93	1,125.60	16,062.94	6.22	1,595.90	4,700.68	25.97	2,218.72	25,462.94	12.26	
1,162.06	4,859.09	5.141	1,006.60	2,955.30	13.08	155.46	4,529.86	.69	927.62	3,882.92	17.18	772.16	12,511.80	3.42	628.75	4,511.67	19.96	1,400.91	17,463.85	6.19	1,995.63	5,878.55	26.01	2,767.79	28,230.73	12.25	
1,257.69	6,116.78	6.351	881.90	2,802.29	14.16	375.79	4,154.07	1.90	870.06	3,672.35	18.55	494.27	13,006.07	2.50	588.09	4,200.44	21.52	1,082.36	18,546.21	5.47	1,866.58	5,538.93	27.97	2,360.85	30,591.58	11.92	
1,329.88	7,446.66	7.150	828.45	2,764.37	14.86	501.43	3,652.64	2.70	806.08	3,570.45	19.20	304.65	13,310.72	1.64	575.50	4,145.95	22.20	880.15	19,426.36	4.73	1,826.68	5,397.13	28.59	2,131.33	32,722.91	11.46	
1,312.54	8,759.20	7.721	757.25	2,613.31	15.37	555.29	3,097.35	3.25	747.84	3,361.15	19.77	192.55	13,503.27	1.13	541.11	3,962.26	22.95	733.66	20,160.02	4.32	1,717.45	5,978.60	29.87	1,910.00	34,632.91	11.24	
1,657.71	10,416.91	8.329	886.35	3,166.56	15.91	771.36	2,325.99	3.88	889.22	4,055.78	20.38	117.86	13,621.13	.59	652.24	4,708.02	23.66	770.10	20,930.12	3.87	2,070.15	6,125.93	30.78	2,188.01	36,820.92	10.99	
1,377.20	11,794.11	9.002	681.47	2,526.03	16.51	695.73	1,630.26	4.55	895.36	3,221.39	21.05	.37	13,620.76	....	517.43	3,738.82	24.44	517.06	21,447.18	3.38	1,642.33	4,863.72	31.79	1,641.96	38,462.88	10.73	
1,796.39	13,590.50	9.554	837.31	3,196.40	17.00	959.08	671.18	5.10	866.35	4,062.75	21.61	92.73	13,528.03	.49	651.97	4,714.72	25.08	559.24	22,006.42	2.97	2,069.23	6,131.98	32.62	1,976.50	40,439.38	10.51	
1,630.03	15,220.53	10.125	717.12	2,819.09	17.51	912.91	241.73	5.67	752.40	3,571.49	22.18	160.51	13,367.52	1.00	572.59	4,144.08	25.74	412.08	22,418.50	2.56	1,817.43	5,388.92	33.47	1,656.92	42,096.30	10.29	
1,519.60	16,740.13	10.776	628.05	2,560.89	18.09	891.57	1,133.28	6.31	669.47	3,220.36	22.84	222.08	13,145.44	1.57	515.77	3,736.13	26.50	293.69	22,712.19	2.08	1,636.75	4,857.11	34.45	1,414.67	45,510.97	10.63	
1,883.53	18,623.66	11.771	712.68	3,036.23	18.98	1,170.85	2,304.13	7.32	777.85	3,814.08	23.84	393.00	12,752.44	2.46	610.01	4,424.09	27.65	217.01	22,929.20	1.36	1,936.13	5,750.21	35.94	1,543.13	45,054.10	9.64	
1,729.92	20,353.58	13.106	587.94	2,661.54	20.16	1,141.98	3,446.11	8.65	661.82	3,323.36	25.17	480.16	12,272.28	3.64	530.63	3,853.90	29.20	50.47	22,979.67	.38	1,684.25	5,007.61	37.93	1,294.09	46,258.19	9.12	
1,646.55	22,000.13	12.569	583.50	2,579.07	19.69	1,063.05	4,509.16	8.11	648.80	3,227.87	24.63	414.25	11,858.03	3.16	515.72	3,743.59	28.58	101.47	23,081.14	.77	1,636.90	4,864.77	37.14	1,222.65	47,489.84	9.33	
1,525.02	23,525.15	13.374	507.75	2,326.29	20.41	1,017.27	5,526.43	8.92	575.12	2,901.41	25.45	442.15	11,415.88	3.88	463.11	3,364.52	29.51	20.96	23,102.10	.02	1,469.91	4,371.32	38.34	1,027.76	48,508.60	9.01	
1,399.07	24,924.22	13.852	449.85	2,103.46	20.82	949.22	6,475.65	9.40	515.00	2,618.46	25.92	434.22	10,981.66	4.30	417.73	3,036.19	30.06	16.49	23,085.61	.16	1,325.85	3,944.31	39.65	891.63	49,400.23	8.83	
1,490.52	26,414.74	14.614	454.32	2,193.60	21.50	1,036.20	7,511.85	10.16	528.96	2,722.56	26.69	507.24	10,474.42	4.97	433.95	3,156.51	30.94	73.29	23,012.32	.71	1,377.37	4,069.93	40.20	870.13	50,270.36	8.53	
1,544.32	27,959.06	15.292	449.85	2,232.89	22.10	1,094.47	8,096.32	10.83	531.58	2,764.47	27.37	562.80	9,911.53	5.57	440.33	3,204.80	31.73	122.56	22,889.76	1.21	1,397.56	4,162.03	41.21	834.67	51,105.03	8.26	
1,590.22	29,558.28	15.992	445.40	2,273.50	22.93	1,153.82	9,760.14	11.54	534.38	2,807.88	28.08	619.44	9,292.09	6.19	446.90	3,254.78	32.55	172.54	22,717.22	1.73	1,418.49	4,226.37	42.26	799.05	51,904.08	7.99	
1,603.45	31,161.73	16.531	432.02	2,251.57	23.21	1,171.43	10,931.57	12.07	524.28	2,775.85	28.61	647.15	8,644.94	6.67	441.59	3,217.44	33.17	205.56	22,511.66	2.12	1,401.61	4,177.46	43.07	754.46	52,658.54	7.78	
6,418.92	37,580.65	16.850	1,670.20	9,766.00	26.04	4,748.72	15,680.29	12.66	2,162.90	11,928.90	31.81	2,585.82	6,059.12	6.89	1,892.55	13,821.45	36.86	693.27	21,818.39	1.85	6,007.17	17,936.67	47.83	3,421.35	56,079.89	9.12	
6,477.78	44,058.43	21.520	1,340.60	8,324.30	27.65	5,137.18	20,817.47	17.08	1,798.35	10,122.65	33.63	3,338.83	2,720.29	11.09	1,603.80	11,726.45	38.96	1,735.03	20,083.36	5.76	5,090.77	15,213.42	50.54	1,751.94	57,831.83	5.82	
5,950.79	50,009.22	25.210	1,051.15	7,302.68	30.94	4,899.64	25,717.11	20.76	1,510.00	8,812.68	37.35	3,389.64	600.35	14.36	1,393.00	10,205.68	43.24	1,996.64	18,086.72	8.46	4,421.74	13,234.42	56.08	1,032.10	58,863.93	4.37	
3,169.61	53,178.83	27.807	507.75	3,789.82	29.63	2,661.86	28,378.97	23.35	762.89	4,552.71	39.94	1,898.97	2,568.32	16.66	718.72	5,271.43	46.24	1,180.25	16,906.47	10.35	2,281.30	6,834.01	59.95	382.33	59,246.26	3.35	
3,184.71	56,363.54	30.326	467.66	3,726.47	35.48	2,717.05	31,066.02	25.88	732.94	4,459.41	42.47	1,984.11	4,552.43	18.89	703.20	5,162.61	49.16	1,280.91	15,625.56	12.20	2,231.98	6,691.39	63.72	247.87	59,494.13	2.36	
2,748.68	59,112.22	34.361	356.31	3,126.07	39.08	2,392.37	33,488.39	29.90	595.23	3,721.30	46.51	1,797.14	6,349.57	22.46	485.89	4,207.19	52.59	1,311.25	14,314.31	16.49	1,839.62	5,580.92	69.75	62.48	59,556.61	.78	
2,249.58	61,361.80	37.488	267.22	2,																							

STATISTICS, YEAR ENDING DEC. 31, 1906.

D., C. & G.		5% Dep.	Costs M., D., C., G. and Dep.		Profit & loss M., D., C., G. and dep.			2½ % Int.	Costs M., D., C., G., dep. & int.		Profit & loss M., D., C., G., dep., int.			8% Int.	Cost M., D., C., G., dep., int.		Profit & loss M., D., C., G., dep., int.			Total cost.	Consumption per year.	Consumers.				Total operating cost per M.
am't.	Per cons.	3.273 1 cons. + 0.725 1 M sold.	Amount.	Per cons.	Amount.	Agg. am't.	Per cons.	1 65 1 cons. 0.0987 1 M.	Amount.	Per cons.	Amount.	Agg. am't.	Per cons.	5.237 1 cons. 3.133 1 M.	Amount.	Per cons.	Amount.	Agg. am't.	Per cons.	Per M sold.	Less than—	No.	%	Agg. No.	% Total.	
73	6.22	334.95	1,035.16	10.25	962.68	962.68	9.53	172.61	1,207.77	11.96	1,135.29	1,135.29	11.24	547.84	1,583.00	15.68	1,510.52	1,510.52	14.96	26.22	1,000	1.05	101	1.65	11.53	
88	5.68	482.97	1,542.56	10.78	1,295.12	2,257.80	9.06	256.30	1,798.86	12.58	1,551.42	2,686.71	10.85	813.47	2,556.03	16.47	2,108.59	3,619.11	14.75	11.43	2,000	2.35	244	4.60	5.14	
02	6.58	462.62	1,542.80	11.51	1,144.76	3,402.56	8.54	253.84	1,796.64	13.41	1,398.60	4,085.31	10.40	805.64	2,348.44	17.52	1,950.40	5,569.51	14.55	7.09	3,000	2.20	378	6.20	3.26	
04	4.45	422.16	1,442.54	12.02	956.18	4,358.74	7.97	238.00	1,680.54	14.00	1,194.18	5,279.49	9.95	755.38	2,197.92	18.32	1,711.56	7,281.07	14.26	5.42	4,000	1.95	498	8.15	2.52	
76	3.49	489.75	1,753.55	12.90	960.47	5,319.21	7.12	287.96	2,041.51	15.12	1,248.43	6,527.92	9.25	914.02	2,667.57	19.76	1,874.49	9,155.56	13.88	4.04	5,000	2.21	633	10.56	1.92	
39	3.13	601.71	2,189.66	13.35	1,114.34	6,433.55	6.79	359.04	2,548.70	15.54	1,473.38	8,001.30	8.99	1,139.55	3,329.21	20.30	2,253.89	11,409.45	13.74	3.72	6,000	2.69	797	13.05	1.77	
07	2.50	677.00	2,530.08	13.98	1,129.68	7,563.23	6.24	413.83	2,943.91	16.26	1,543.51	9,544.81	8.53	1,313.50	3,843.58	21.23	2,443.18	13,852.63	13.50	3.30	7,000	2.95	978	16.00	1.59	
42	1.59	691.96	2,680.75	14.89	978.31	8,541.54	5.43	437.03	3,117.78	17.32	1,415.34	10,960.15	7.86	1,386.77	4,067.52	22.60	2,365.08	16,217.71	13.06	2.87	8,000	2.95	1158	18.95	1.40	
06	1.79	699.34	2,845.70	15.81	1,020.98	9,562.52	5.07	447.09	3,292.79	18.29	1,468.07	12,428.22	8.16	1,418.69	4,264.39	23.69	2,439.67	18,057.38	13.54	2.80	9,000	2.95	1338	21.90	1.41	
64	.53	741.63	2,984.73	15.96	840.21	10,402.73	4.49	484.94	3,469.67	18.55	1,325.15	13,753.37	7.09	1,539.20	4,523.93	24.19	2,379.41	21,036.75	12.72	2.53	10,000	3.05	1525	24.95	1.26	
86	.04	707.89	2,896.05	16.46	714.09	11,116.82	4.06	469.88	3,365.93	19.12	1,183.97	14,937.34	6.73	1,493.34	4,389.39	24.94	2,207.43	23,244.22	12.54	2.42	11,000	2.90	1701	27.85	1.21	
32	.66	742.36	3,104.78	17.39	622.82	11,739.64	3.44	502.78	3,607.56	19.93	1,125.60	16,062.94	6.22	1,595.90	4,700.68	25.97	2,218.72	25,462.94	12.26	2.27	12,000	2.95	1882	30.80	1.14	
86	.69	927.62	3,882.92	17.18	772.16	12,511.80	3.42	628.75	4,511.67	19.96	1,400.91	17,463.85	6.19	1,905.63	5,878.55	26.01	2,767.79	28,230.73	12.25	2.27	13,000	3.71	2108	34.51	1.14	
07	1.90	870.06	3,672.35	18.55	494.27	13,006.07	2.50	588.09	4,260.44	21.52	1,082.36	18,546.21	5.47	1,866.58	5,538.93	27.97	2,360.85	30,591.58	11.92	2.09	14,000	3.25	2366	37.76	1.06	
64	2.70	806.08	3,570.45	19.20	304.65	13,310.72	1.64	575.50	4,145.95	22.29	880.15	19,426.36	4.73	1,826.68	5,397.13	28.57	2,131.33	32,722.91	11.46	1.98	15,000	3.05	2492	40.81	1.02	
35	3.25	747.84	3,361.15	19.77	192.55	13,503.27	1.13	541.11	3,962.26	22.95	733.66	20,160.02	4.32	1,717.45	5,078.60	29.89	1,910.00	34,632.91	11.24	1.93	16,000	2.79	2662	43.60	.90	
99	3.88	889.22	4,055.78	20.38	117.86	13,621.13	.59	652.24	4,708.02	23.66	770.10	20,930.12	3.87	2,070.15	6,125.93	30.78	2,188.01	36,820.92	10.99	1.91	17,000	3.23	2861	46.83	.966	
26	4.55	695.36	3,221.39	21.05	.37	13,620.76	....	517.43	3,738.82	24.44	517.06	21,447.18	3.38	1,642.33	4,863.72	31.79	1,641.96	38,462.88	10.73	1.81	18,000	2.51	3014	49.34	.942
18	5.10	866.35	4,062.75	21.61	92.73	13,528.03	.49	651.97	4,714.72	25.08	559.24	22,006.42	2.97	2,069.23	6,131.98	32.62	1,976.50	40,439.38	10.51	1.77	19,000	3.06	3212	52.40	.923	
73	5.67	752.40	3,571.49	22.18	160.51	13,367.52	1.00	572.59	4,144.08	25.74	412.08	22,418.50	2.56	1,817.43	5,388.92	33.47	1,656.92	42,096.30	10.29	1.89	20,000	2.64	3363	55.04	.907	
28	6.31	669.47	3,220.36	22.84	222.08	13,145.44	1.57	515.77	3,736.13	26.50	293.69	22,712.19	2.08	1,636.75	4,857.11	34.45	1,414.67	43,510.97	10.03	1.70	21,000	2.31	3504	57.35	.889	
13	7.32	777.85	3,814.08	23.84	393.00	12,752.44	2.46	610.01	4,424.09	27.65	217.01	22,929.20	1.36	1,936.13	5,750.21	35.94	1,543.13	45,054.10	9.64	1.64	22,000	2.62	3664	59.97	.865	
11	8.65	661.82	3,323.36	25.17	480.16	12,272.28	3.64	530.63	3,853.90	29.20	50.47	22,979.67	.38	1,684.25	5,007.61	37.93	1,204.09	46,258.19	9.12	1.58	23,000	2.16	3794	62.13	.840	
06	8.11	648.80	3,227.87	24.63	414.25	11,858.03	3.16	515.72	3,743.59	28.58	101.47	23,081.14	.77	1,636.90	4,864.77	37.14	1,222.65	47,480.84	9.33	1.60	24,000	2.16	3927	64.29	.850	
43	8.92	575.12	2,901.41	25.45	442.15	11,415.88	3.88	463.11	3,364.52	29.51	20.96	23,102.10	.02	1,469.91	4,371.32	38.34	1,027.76	48,508.60	9.01	1.57	25,000	1.87	4041	66.16	.836	
65	9.40	515.00	2,618.46	25.92	434.22	10,981.66	4.30	417.73	3,036.19	30.06	16.49	23,085.61	.16	1,325.85	3,944.31	39.05	891.63	49,400.23	8.83	1.55	26,000	1.65	4142	67.81	.829	
85	10.16	528.96	2,722.56	26.69	507.24	10,474.42	4.97	433.95	3,156.51	30.94	73.29	23,012.32	.71	1,377.37	4,069.93	40.20	870.13	50,270.36	8.53	1.53	27,000	1.65	4244	69.46	.817	
32	10.83	531.58	2,764.47	27.37	562.89	9,911.53	5.57	440.33	3,204.80	31.73	122.56	22,889.76	1.21	1,397.56	4,162.03	41.21	834.67	51,105.03	8.26	1.50	28,000	1.65	4345	71.11	.806	
14	11.54	534.38	2,807.88	28.08	619.44	9,292.09	6.19	446.90	3,254.78	32.55	172.54	22,717.22	1.73	1,418.49	4,226.37	42.26	799.05	51,904.08	7.99	1.48	29,000	1.64	4445	72.75	.797	
57	12.07	524.28	2,775.85	28.61	647.15	8,644.94	6.67	441.59	3,217.44	33.17	205.56	22,511.66	2.12	1,401.61	4,177.46	43.07	754.46	52,658.54	7.78	1.47	30,000	1.58	4542	74.33	.790	
29	12.66	2,162.90	11,928.90	31.81	2,585.82	6,059.12	6.89	1,892.55	13,821.45	36.86	693.27	21,818.39	1.85	6,007.17	17,936.07	47.83	3,421.35	56,079.89	9.12	1.39	35,000	375	6.14	4917	80.47	.756
47	17.08	1,798.35	10,122.65	33.63	3,338.83	2,720.20	11.09	1,603.80	11,726.45	38.96	1,735.03	20,083.36	5.76	5,090.77	15,213.42	50.54	1,751.94	57,831.83	5.82	1.36	40,000	301	4.93	5218	85.40	.742
11	20.76	1,510.00	8,812.68	37.35	3,389.64	669.35	14.36	1,393.00	10,205.68	43.24	1,996.64	18,086.72	8.46	4,421.74	13,234.42	56.08	1,032.10	58,863.93	4.37	1.30	45,000	236	3.87	5454	89.27	.719
97	23.35	762.89	4,552.71	39.94	1,898.97	2,568.32	16.66	718.72	5,271.43	46.24	1,180.25	16,906.47	10.35	2,281.30	6,834.01	59.95	382.33	59,246.26	3.35	1.27	50,000	114	1.87	5568	91.14	.705
02	25.88	732.94	4,459.41	42.47	1,984.11	4,552.43	18.89	703.20	5,162.61	49.16	1,280.91	15,625.56	12.20	2,231.98	6,691.39	63.72	247.87	59,494.13	2.36	1.25	55,000	105	1.77	5673	92.91	.693
39	29.90	595.23	3,721.30	46.51	1,797.14	6,349.57	22.46	485.89	4,207.19	52.59	1,311.25	14,314.31	16.49	1,859.62	5,580.92	69.75	62.48	59,556.61	.78	1.22	60,000	80	1.31	5753	94.22	.680
75	33.04	467.91	2,980.03	49.67	1,514.45	7,864.02	25.23	468.67	3,448.70	57.47	1,045.78	13,268.53	17.43	1,487.60	4,467.63	74.46	26.85	59,529.76	.45	1.25	65,000	60	.98	5813	95.20	.671
12	36.40	450.04	2,917.31	53.04	1,552.33	9,416.35	28.22	458.36	3,375.67	61.37	1,093.97	12,174.56	17.89	1,454.82	4,372.13	79.50	97.51	59,432.25	1.77	1.18	70,000	55	.90	5868	96.10	.664
89	39.42	264.32	1,738.11	56.06	957.45	10,373.80	30.88	272.82	2,010.93	64.88	684.63	11,489.93	22.08	866.05	2,604.16	84.00	59,340.85	2.95	1.16	75,000	31	.50	5899	96.60	.657	
14	43.09	250.53	1,673.60	59.77	956.32	11,330.12	34.15	262.51	1,936.11	69.14	693.81	10,796.12	24.78	833.23	2,506.83	89.52	123.09	59,217.76	4.40	1.14	80,000	28	.45	5927	97.05	.649
29	45.55	276.82	1,867.07	62.23	1,089.73	12,419.85	36.32	302.70	2,169.77	72.32	787.03	10,009.09	26.23	929.07	2,796.14	93.20	100									

286

Office Furniture and Fixtures.

(Included in working capital.)

Roll-top desks.....	@ \$50.00	\$150.00
" "	30.00	120.00
Tables.....	15.00	30.00
"	30.00	30.00
Safe		150.00
Desks	20.00	100.00
Counters, furniture, fret-work, etc.....		1500.00
Book cases.....	15.00	30.00
Demonstration Room, furniture and supplies.....		200.00
Books and stationery.....		300.00
Chairs, stools, etc.....		100.00
Total.....		\$2710.00

287

Street Mains under Paved and Dirt Streets.

Lincoln, Nebraska.

Size.	Paved streets.		Dirt streets.		Total.	
	Feet.	Miles.	Feet.	Miles.	Feet.	Miles.
2".....	44650	8.46	162637	30.79	207287	39.25
4".....	46850	8.87	32567	6.17	79417	15.04
6".....	13800	2.61	6600	1.25	20400	3.86
8".....	3600	.68	1222	.23	4822	.91
10".....	4000	.76	5500	1.04	9500	1.80
12".....	1600	.32	2350	.43	3950	.75
18".....	350	.06	950	.18	1300	.24
30".....			1400	.26	1400	.26
Total..	114850	21.76	213226	40.35	328076	62.11

(Here follow pasters marked pages 288 and 289.)

EXHIBIT B—M. E. W.
Year Ending Dec. 31, 1906.

Consumption for year.	Consumers.				Cubic feet sold.				Revenue.				Sizes of meters.								No. of meters.
	No.	%	Agg'te No.	% Total.	Number.	%	Aggregate No.	% Total.	Amount.	%	Aggregate amount.	% Total.	3005	10	20	30	45	60	100	150	
Less than 1,000	101	1.65	101	1.65	60,400	.03	60,400	.03	72 48	.03	72 48	.03	101								101
1,000 to 2,000	143	2.35	244	4.00	206,200	.13	266,600	.16	247 44	.13	319 92	.16	157								157
2,000 to 3,000	134	2.20	378	6.20	331,700	.21	598,300	.37	398 04	.21	717 96	.37	135								135
3,000 to 4,000	120	1.95	498	8.15	405,300	.27	1,003,600	.64	486 36	.27	1,204 32	.64	120								120
4,000 to 5,000	135	2.21	633	10.36	660,900	.43	1,664,500	1.07	793 08	.43	1,997 40	1.07	172								172
5,000 to 6,000	164	2.69	797	13.05	896,100	.59	2,560,600	1.66	1,075 32	.59	3,072 72	1.66	187								187
6,000 to 7,000	181	2.95	978	16.00	1,167,000	.76	3,727,600	2.42	1,400 40	.76	4,473 12	2.42	183								183
7,000 to 8,000	180	2.95	1158	18.95	1,418,700	.92	5,146,300	3.34	1,702 44	.92	6,175 56	3.34	179			1					180
8,000 to 9,000	180	2.95	1338	21.90	1,520,600	.99	6,666,900	4.33	1,824 72	.99	8,000 28	4.33	192								192
9,000 to 10,000	187	3.05	1525	24.95	1,787,100	1.16	8,454,000	5.49	2,144 52	1.16	10,144 80	5.49	189	1							190
10,000 to 11,000	176	2.90	1701	27.85	1,818,300	1.18	10,273,200	6.67	2,181 96	1.18	12,326 76	6.67	195	1							196
11,000 to 12,000	181	2.95	1882	30.80	2,068,300	1.35	12,340,600	8.02	2,481 96	1.35	14,808 72	8.02	209								209
12,000 to 13,000	226	3.71	2108	34.51	2,592,300	1.68	14,932,900	9.70	3,110 76	1.68	17,919 48	9.70	231	2	1						231
13,000 to 14,000	198	3.25	2306	37.78	2,648,400	1.73	17,581,300	11.43	3,178 08	1.73	21,097 56	11.43	247								247
14,000 to 15,000	186	3.05	2492	40.81	2,721,500	1.78	20,302,800	13.21	3,265 80	1.78	24,363 36	13.21	189								189
15,000 to 16,000	170	2.79	2662	43.60	2,640,500	1.72	22,943,300	14.93	3,168 60	1.72	27,531 96	14.93	198								198
16,000 to 17,000	199	3.23	2861	46.83	3,281,600	2.15	26,224,900	17.08	3,937 92	2.15	31,469 88	17.08	207	1							208
17,000 to 18,000	153	2.51	3014	49.34	2,684,800	1.75	28,909,700	18.83	3,221 76	1.75	34,691 64	18.83	161	2							163
18,000 to 19,000	188	3.06	3202	52.40	3,462,900	2.26	32,372,600	21.09	4,155 48	2.26	38,847 12	21.09	213		1						214
19,000 to 20,000	161	2.64	3363	55.04	3,110,000	2.04	35,482,600	23.13	3,732 00	2.04	42,579 12	23.13	182								182
20,000 to 21,000	141	2.31	3504	57.35	2,868,700	1.88	38,351,300	25.01	3,442 44	1.88	46,021 56	25.01	149	1							150
21,000 to 22,000	160	2.62	3664	59.97	3,505,900	2.29	41,857,200	27.30	4,207 08	2.29	50,228 64	27.30	198								199
22,000 to 23,000	132	2.16	3794	62.13	3,169,600	2.07	45,026,800	29.37	3,803 52	2.07	54,032 16	29.37	149		1						150
23,000 to 24,000	131	2.16	3927	64.29	3,035,100	1.98	48,061,900	31.35	3,642 12	1.98	57,674 28	31.35	137				1				137
24,000 to 25,000	114	1.87	4041	66.16	2,786,300	1.82	50,848,200	33.17	3,343 56	1.82	61,017 84	33.17	122								122
25,000 to 26,000	101	1.65	4142	67.81	2,543,900	1.66	53,392,100	34.83	3,052 68	1.66	64,070 52	34.83	112								112
26,000 to 27,000	102	1.65	4244	69.46	2,691,500	1.76	56,083,600	36.59	3,229 80	1.76	67,300 32	36.59	121								121
27,000 to 28,000	101	1.65	4345	71.11	2,772,800	1.81	58,856,400	38.40	3,327 36	1.81	70,627 68	38.40	105								105
28,000 to 29,000	100	1.64	4445	72.75	2,856,100	1.87	61,712,500	40.27	3,427 32	1.87	74,055 00	40.27	131								131
29,000 to 30,000	97	1.58	4542	74.33	2,852,500	1.86	64,565,000	42.13	3,423 00	1.86	77,478 00	42.13	97								97
30,000 to 35,000	375	6.14	4917	80.47	12,905,600	7.90	76,660,600	50.03	14,514 72	7.90	91,992 72	50.03	445	2			1				449
35,000 to 40,000	301	4.93	5218	85.40	11,217,900	7.32	87,878,500	57.35	13,461 48	7.32	105,454 20	57.35	335		1	1					337
40,000 to 45,000	236	3.87	5454	89.27	10,168,600	6.63	98,047,100	63.98	12,202 32	6.63	117,556 52	63.98	284								284
45,000 to 50,000	114	1.87	5568	91.14	5,376,400	3.51	103,423,500	67.49	6,451 68	3.51	124,108 20	67.49	115	1	1						117
50,000 to 55,000	105	1.77	5673	92.91	5,369,600	3.50	108,793,100	70.99	6,443 52	3.50	130,551 72	70.99	130	1							132
55,000 to 60,000	80	1.31	5753	94.22	4,598,700	3.00	113,391,800	73.99	5,518 44	3.00	136,070 16	73.99	80								80
60,000 to 65,000	60	.98	5813	95.20	3,745,400	2.45	117,137,200	76.44	4,394 48	2.45	140,564 64	76.44	66	1							68
65,000 to 70,000	55	.90	5868	96.10	3,724,700	2.44	120,861,900	78.88	4,469 6	2.44	145,034 28	78.88	77	1							78
70,000 to 75,000	31	.50	5899	96.60	2,246,300	1.47	123,108,200	80.35	2,695 56	1.47	147,729 84	80.35	29				2				31
75,000 to 80,000	28	.45	5927	97.05	2,191,600	1.43	125,299,800	81.78	2,629 92	1.43	150,359 76	81.78	28	1							29
80,000 to 85,000	30	.50	5957	97.55	2,464,000	1.61	127,763,800	83.39	2,956 80	1.61	153,316 56	83.39	41	1							42
85,000 to 90,000	21	.29	5978	97.84	1,843,400	1.20	129,607,200	84.59	2,212 08	1.20	155,528 64	84.59	27	2		1					30
90,000 to 95,000	7	.11	5985	97.95	647,100	.42	130,254,300	85.01	776 52	.42	156,305 16	85.01	6								7
95,000 to 100,000	9	.15	5994	98.10	880,400	.58	131,134,700	85.59	1,056 48	.58	157,361 64	85.59	8								9
100,000 to 110,000	12	.20	6006	98.30	1,253,400	.82	132,388,100	86.41	1,504 08	.82	158,865 72	86.41	19	1							20
110,000 to 120,000	11	.18	6017	98.48	1,252,000	.82	133,640,100	87.23	1,502 40	.82	160,368 12	87.23	18	3	1						22
120,000 to 130,000	8	.13	6025	98.61	1,007,900	.65	134,648,000	87.88	1,209 48	.65	161,577 60	87.88	11		1						13
130,000 to 140,000	16	.26	6041	98.87	2,119,100	1.38	136,767,100	89.26	2,542 92	1.38	164,120 52	89.26	10	5	1						19
140,000 to 150,000	8	.13	6049	99.00	1,155,300	.75	137,922,400	90.01	1,386 36	.75	165,506 88	90.01	10								11
150,000 to 160,000	13	.21	6062	99.21	1,961,700	1.28	139,884,100	91.29	2,354 04	1.28	167,860 92	91.29	31		1						32
160,000 to 170,000	2	.03	6064	99.24	334,300	.22	140,218,200	91.51	401 16	.22	168,262 08	91.51	2	1							4
170,000 to 180,000	3	.05	6067	99.29	523,300	.34	140,741,700	91.85	627 96	.34	168,890 04	91.85	2					1			3
180,000 to 190,000	6	.10	6073	99.39	1,109,000	.73	141,850,700	92.58		.73	170,220 84	92.58	35	9	1						45
190,000 to 200,000			6073	99.39			141,850,700	92.58			170,220 84	92.58									
200,000 to 300,000	20	.33	6093	99.72	4,690,600	3.07	146,541,300	95.65	5,628 72	3.07	175,849 56	95.65	50	5	2	4	1	2			64
300,000 to 400,000	11	.18	6104	99.90	3,322,000	2.17	149,863,300	97.82	3,986 40	2.17	179,835 06	97.82	39	6	1				2		48
400,000 to 500,000	4	.07	6108	99.97	1,725,900	1.13	151,589,200	98.95	2,071 08	1.13	181,907 04	98.95	2		1						5
Over 500,000	2	.03	6110	100.	1,613,400	1.05	153,202,600	100.	1,936 08	1.05	183,843 12	100.	1	2							4
Totals	6110	100.	6110	100.	153,202,600	100.	153,202,600	100.	\$183,843 12	100.	\$183,843 12	100.	6866	50	14	8	10	5	5	2	6960

LINCOLN GAS & ELECTRIC LIGHT CO.

MANUFACTURING AND EXPENSE REPORTS OF GAS DE-
PARMENT FOR YEAR ENDING DEC. 31, 1906.

REPORT FOR

GROSS EARNINGS.

	FROM SALE OF GAS	AMOUNTS		Increase or Decrease	Receipts per M. Sold
		This Year	Last Year		This Year Last Year
900	Illuminating Purposes,				
901	Domestic Fuel do				12,000
902	Industrial Fuel do	184 395 02			
903	Power do				
904	Street Lamp do				
905	Total from Gas Sales,	184 395 02			12,000
906	Meter charge on Minimum Bills	716 50			0045
907	Forfeited Discount,	3 456 74			0232
908	Total Earnings from Gas,	188 568 26			12270
909	Bad Debts,	2 790 00			0180
910	Gross Earnings Gas Dept't.	185 778 26			12090
911	Operating Expenses (Total) (917)	127 049 24			8268
912	Net Earnings Gas Dept't.	58 729 02			3822

SUMMARY OF OPERATING EXPENSES.

	Plant	Output	Consumers	Meters	Total Cost	
					This Year	Last Year
913	Manufacturing (1200)	11 007 16			173 580 22	
914	Distribution (1309)	13 241 99	4 088 83	2 303 50	19 634 32	
915	Collection (1406)		4 925 43	1 767 18	6 692 61	
916	General (1509)	27 142 09			27 142 04	
917	Totals	51 391 24	9 014 26	4 070 68	127 049 24	

SUMMARY OF OPERATING EXPENSES, PER UNIT.

	Per M. Sold			Per Consumer		
	Plant	Output	Consumers	Meters	Consumer Charges	Total C. & M.
913a	Manufacturing (1200)	0716 4013				
914a	Distribution (1309)	0962	0266 050	7254 4086	11340 7058	2977 11038
915a	Collection (1406)		0320 0115	3737 3135	11870 8506	3052 11555
916a	General (1509)	1766				
917a	Totals,	2344 4073 0586	0265 8268	1591 7221 2320	1564 7029 22593	

SUMMARY OF GAS SALES.

(POPULATION 46500)

	Total Sales (Cu. ft.)		No. of Meters		Av'g Sale per Meter	
	This Year	Last Year	This Yr.	Last Yr.	This Yr.	Last Yr.
918	Ill'ig Gas,					
919	Dom. Fuel Gas,					
920	Ind. Fuel Gas,					
921	Power Gas,					
922	Total Fuel Gas,	153 603 600			26 535	2304
923	Total Private Sales,	153 603 600	5906		26 535	8304
924	Street Lamps,					
925	Total Sales,	153 603 600				

CONSUMERS.

	No. Using		Both	Total No. Consumers		Total Using	
	Ill'ig Gas Only	Fuel Gas Only		Ill'ig Gas	Fuel Gas		
926	First of Month.			5320			
927	New during Month.			2492			
928	Total.			7812			
929	Off during Month.			1930			
930	Close of Month.			5882			
931	First of Year,			5320			
932	Gain or Loss,			5620			

CONSUMER DATA.

	This Year	Last Year	This Year	Last Year
941	Ill'ig Sales per Ill'ig Consumer		Inhabitants per Ill'ig Consumer	
942	Dom. F. " " Dom. F. "		" " Dom. Fuel "	
943	Indust'l " " Ind. "		" " Ind. Fuel "	
944	Power " " Power "		" " Power "	
945	Average Sales per Consumer.	27260	" " Consumer	8248

Per C-1
290 x 4

REPORT FOR

MANUFACTURING DEPARTMENT. COAL GAS.

	Plant	Expense	Output	Expense	Output	per M.	Total Cost		Total Cost per M.	
							This Year	Last Year	This Yr.	Last Yr.
1000	Coal Carbonized	1579.15 @ 5.678								
1001	Enricher	24.88 @ 50								
1002	Bench Fuel	321.91 @ 50								
1003	Total Cost C. G. Mfg. Mat'l									
1004	Coke Residual	4501.51 @ 50								
1005	Tar	654.48.1 @ 02								
1006	Ammonia	do @								
1007	Carbon	do @								
1008	Total Residuals									
1009	Net Cost C. G. Mfg. Material									
1010	Retort House Labor									
1011	Bench Repairs									
1012	Retort House Expense									
1013	Total Cost Generating Coal Gas									
1014	Steam									
1015	Purifying C. G., Labor, Exp. & Repairs									
1016	do Material									
1017	General Works, Bldgs., Repairs (C. G.)									
1018	do Apparatus, do (C. G.)									
1019	Sundry Labor (C. G.)									
1020	Works Expense and Supplies (C. G.)									
1021	General Supervision (C. G.)									
1022	District Holder Station (C. G.)									
1023	Total Purification and Storage									
1024	Total Cost Coal Gas in Holder									

COAL GAS STATISTICS.

	This Year	Last Year		This Year	Last Year					
1029	Coal Gas made									
1030	Kind of Coal used									
1031	Coal Carbonized									
1032	Yield per lb. Coal									
1033	Cost of Coal per ton									
1034	Average number retorts in use									
1035	Average charge per retort									
1036	Average make per retort.									
1037	Average make per man charged acct No. 1010									
1038	Coke made per ton Coal carbonized									
1039	Coke used for Bench Fuel									
1040	Coal									
1041	Receipts for Coke per ton sold									
1042	do per ton Coal carbonized									
1043	Tar made per ton Coal carbonized									
1044	Receipts for Tar per do									
1045	do per gal. sold									
1046	Ammonia made per ton Coal carbonized									
1047	Receipts for Ammonia do									
1048	do per lb. sold									
1049	Carbon sold									
1050	Price received for Carbon per ton									
1051	Gas Purified per bu. per change									
1052	Spent Oxide sold									
1053										
1054	Illuminating Power									
1055										
1056										
1057	Heat Units (B. T. U.)									
1058										
1059										
1060										
1061										

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REPORT FOR

MANUFACTURING DEPARTMENT. WATER GAS.

	Plant Expense	Output Expense	Output Per M.	TOTAL COST		Tot. Cost per M
				This Year	Last Year	This Yr. Last Yr.
1100 Steam for Generating Water Gas, Generator Fuel, 263866 Tons @ 53¢		4 107 16	0356	4 107 16		0356
1101 Enricher, 430498 @ 04086		13 985 51	1212	3 985 51		1212
1102 Total W. G. Making Material, Water Gas Tar Residual Acc't,		17 584 74	1525	13 584 74		1525
1103 Net Cost W. G. Mfg. Material, Gas Making Labor,		35 677 41	3093	35 677 41		3093
1104 Repairs to W. G. Gen. Apparatus, W. G. Generating House Expense,		35 677 41	3093	35 677 41		3093
1105 Total Cost Generating W. G., Steam,		2 919 50	0253	2 919 50		0253
1106 Purifying W. G. Labor, Exp. and Rep		2 312 47	0201	2 312 47		0201
1107 Purifying W. G. Material, General Works Repairs, Buildings,		73 79	0006	73 79		0006
1108 General Apparatus Repairs, Sundry Labor,	327 11	46 983 17	3556	40 983 17		3556
1109 Works Expense and Supplies, General Supervision,	952 26	480 00	0042	480 00		0042
1110 District Holder Station, Total Cost Purification and Storage,	1494 95	621 24	0054	621 24		0054
1111 Total Cost Water Gas in Holder,	1453 89	226 50	0019	226 50		0019
1112	1857 98			327 11		0028
1113				952 26		0088
1114				1444 95		0129
1115				1453 89		0126
1116				1857 98		0161
1117						
1118						
1119						
1120						

WATER GAS STATISTICS.

	This Year	Last Year	
1130 Water Gas Made,	115.536	500	Cu Ft.
1131 Enricher Used,	430.498		Gals.
1132 Enricher Used per M.,	3 7		Gals.
1133 Candles per Gal. Enricher,	6 2		
1134 Boiler Fuel per M.,	44		Lbs.
1135 Generator Fuel per M.,	44		Lbs.
1136 Number of Runs,	23.944		
1137 Average Make per Run,	4.816		Cu Ft.
1138 Average Make per Gas Maker per 24 Hours,	95.760		Cu Ft.
1139 Gas Purified per Bu. Material per Change,			Cu Ft.
1140			
1141 Tar Made per M. Cu. Ft. Gas,			Gals.
1142 Tar Made per M. Gal. Oil Used,			Gals.
1143			
1144			
1145 Illuminating Power Water Gas,	22.7		C.P.
1146	16.9		C.P.
1147	19.2		C.P.
1148			B.T.U.
1149 Heat Units. (B.T.U.)			B.T.U.
1150	609.7		B.T.U.
1151			
1152			
1153			
1154			
1155			
1156			
1157			
1158			
1159 Illuminating Power,	20.3		C.P.
1160	16.6		C.P.
1161	18.8		C.P.
1162 Heat Units. (B.T.U.)			B.T.U.
1163			B.T.U.
1164	625.5		B.T.U.
1165			

MIXED GAS STATISTICS.

	Max.	Min.	Avg.	
1158				
1159				
1160				
1161				
1162				
1163				
1164				
1165				

Exec. B. 3
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REPORT FOR

MANUFACTURING DEPARTMENT. PURCHASED GAS.

	Plant Expense	Output Expense	Output Per M.	Total Cost		Tot. Cost per M.	
				This Year	Last Year	This Yr	Last Yr.
1200	Crude Gas Purchased,						
1201	Power for Pumping;						
1202	Enricher,						
1203							
1204							
1205	Total Cost Materials,						
1206	Tar,						
1207	Ammonia,						
1208	Total Residuals,						
1209	Net Cost Materials,						
1210	Steam,						
1211	Purifying Pur. Gas, Labor, Exp. & Rep.,						
1212	" " " Material,						
1213	General Works Rep. Bldgs.,						
1214	General Apparatus Repairs,						
1215	Sundry Labor,						
1216	Works Expense and Supplies,						
1217	General Supervision,						
1218	District Holder Station,						
1219							
1220							
1221	Total Purification and Storage,						
1222	Total Cost Purchased Gas in Holder,						
1223							
1224							
1225							
1226							
1227							
1228							
1229							

MANUFACTURING DEPARTMENT. MIXED GAS.

1250	Total Cost Manuf'g Coal Gas,	492097	3337814	4728	2824911		5426
1251	" " " Water Gas,	608619	4221091	3669	4824710		4195
1252	" " " Coal & Water Gas,	1100716	7568905	4071	8669621		4663
1253	" " " Gas Purchased,						
1254	" " All Gas Manufacturing Dept.,	1100716	7568905	4071	8669621		4663
1255	Output Cost Gas Lost and Unacc'd For						
1256	" " " Used by Co.,		1230184	0661	1230184		0661
1257	Total Deductions from Manuf'g Costs,		172116	0009	172116		0009
1258	Net Cost in Holder of Gas Charged Stock Acct.,		1247400	0670	1247400		0670
1259	Difference Stock on Hand First and Last of Mo.	1100716	6321505	3401	7422221		4830
1260	Net Cost in Holder of Gas Sold,	1100716	64199	0035	64199		0041
			6257306	3366	7258022		4789

GAS ACCOUNT. CUBIC FEET.

	This Year	Last Year	Increase	Decrease	Per Cent. of Total
1280	Gas on Hand First of Month,	221400			2224
1281	Coal Gas Made during Month,	70581200			57.96
1282	Water " " " "	115336500			62.04
1283	Gas Purch'd. " " "				
1284	Total Gas Made and Purch'd,	185917700			100%
1285	Total Gas to Account for,	186149100			100%
1286	Gas on Hand at Close of Month,	1460100			9.944
1287	Gas Delivered to Mains,	184689000			100%
1288	Gas Sold,	153663600			8920
1289	Gas Used by Co.,	438200			0024
1290	Total Gas Sold and Used,	154101800			8944
1291	Gas unaccounted for,	30587200			1656

REPORT FOR

COLLECTION DEPARTMENT

	Charge Consumers		Charge Meters		Total Cost		Total Per M. Sold	
	Amount	Per Mtr	Amount	Per Mtr	This Year	Last Year	This Year	Last Year
1400	Reading Meters,	12 8	293 95	0508	980 55		0064	
1401	Collection Clerical Salaries,	4557	1101 24	1901	670 97		0239	
1402	Collection Office Expense,	0893	210 79	0364	702 68		0046	
1403	Rent of Collection Office,	0667	161 17	0274	597 31		0034	
1404	Delivering Bills,	0261			141 37		0009	
1405	Outside Collections,	1171			659 73		0043	
1406	Total Collect'n Expenses,	8737	1767 18	3058	6692 61		0435	

COLLECTION DEPARTMENT DATA

READING METERS

	First Reading		SUNDRIES AND RETAINS	
	Total No.	Total Hours	No.	Hours
1110	Meters,	62373	2169	29220
1411	Meter Readers,	2169	29220	0129
			5694	460
				0301

CLERICAL SALARIES

	Amount		Cost Per Meter		No. Clerks		Avg Pay Each	
	Total Acct No. 1401.							
1415		8690 97	6511	6329	6 25		58 73	

DELIVERING BILLS

	No. Bills		Labor		Expense		Total Cost		Tot. per Bill	
1420	By Mail,	297			7 94		7 94		020	
1421	By Co.'s Employees,	549	141 01			141 01		0024		
1422	Called for at Office,	592								
1423	Totals,	59	538	141 01	7 94	148 95		0025		

COLLECTIONS

	Gas Bills		Per Cent of		Cost of Collection	
	No.	Amount	Total No.	Total Amt	Amount	Per Bill
1425	Total Private Gas Bills, (Line 003 previous month)	188 568 26				
1426	At Office by Mail,	2596	11 856 17	458	650	455 02
1427	At Office by Tellers,	51308	157 014 29	8962	8616	5744 35
1428	Bills Deposited in Banks,	1827	7 891 26	483	483	289 79
1429	Total at Office,	55731	176 961 82	9699	9699	6491 16
1430	By Co.'s Salaried Collectors,	1534	5494 44	301	301	201 45
1431	By Co.'s Pay Stations,					
1432	By Express Co.'s,					
1433						
1434	Total Outside Collections,	1534	5494 44	301	301	201 45
1435	Total Collections,	57	265 152	256 26	100	100
1436	Balance Outstanding Close of Month,	6	312 00			

ARREARS FOR CURRENT MONTH

	Amount Charged to Arrears on each Mo. Each Date		Collected during Mo. on each Mo.'s Arrears		Previous Collections Reported		Total Collections on Each		Balance outstanding on Close of Month		Amount of Each Considered Collectible	
	ARREARS											
1441	Jan. 31, 190 Bal. Arrears Dec. and prev.	5819 82	3491 60				3491 60	2328 22				
1442	Feb. 28, 190 , Arrears for Jan'y.	1730 96	1244 11				1244 11	486 85				
1443	March 31, 190 , Arrears for Feb'y.	1094 18	790 58				790 58	303 60				
1444	April 30, 190 , Arrears for March	851 53	714 84				704 58	136 68				
1445	May 31, 190 , Arrears for April	410 55	410 36				410 36	19				
1446	June 30, 190 , Arrears for May	688 09	640 99				640 99	48 00				
1447	July 31, 190 , Arrears for June	749 83	747 73				747 73	210				
1448	Aug. 31, 190 , Arrears for July	998 87	856 80				856 80	142 07				
1449	Sept. 30, 190 , Arrears for Aug.	1202 90	868 66				868 66	334 24				
1450	Oct. 31, 190 , Arrears for Sept.	1029 42	679 92				679 92	349 50				
1451	Nov. 30, 190 , Arrears for Oct.	1278 22	565 00				565 00	713 22				
1452	Dec 31, 190 , Arrears for Nov	1487 01										
1453	Totals,	17341 37	11009 69				11009 69	6331 68				

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REPORT FOR

EXECUTIVE DEPARTMENT GENERAL EXPENSES.

	PLANT	TOTALS		Per M. Sold
		This Year	Last Year	
1500 Executive Salaries	2,804 70	2,804 70		0182
1501 General Clerical Salaries	493 62	493 62		0032
1502 General Office Expense	340 30	340 30		0022
1503 Incidental Expense	2,137 77	2,137 77		0159
1504 Rent of Executive Offices	485 28	485 28		0032
1505 Legal Expenses	757 43	757 43		0049
1506 Total Above items	7,019 20	7,019 20		0456
1507 Promoting New Business	13,432 41	13,432 41		0874
1508 Taxes	6,690 48	6,690 48		0496
1509 Total General Expenses	27,142 09	27,142 09		1766

ANALYSIS OF SPECIAL EXPENSE ACCOUNTS NOS. 1819, 1820, 1821, 1822. NEW BUSINESS.

	Domestic Fuel		Illuminating		Industrial Fuel		Power		Totals	
	Total	Per Consumer	Total	Per Consumer	Total	Per Consumer	Total	Per Consumer	Amounts	Per Consumer
1520 a. Advertising, Newspaper, etc.									2,175 52	
1521 b. Circulars and Distr'n									918 35	
1522 c. Bonuses and Commissions									3,916 23	
1523 d. Exhibition Expenses									8670 10	
1524 e. Salaries, Wages and Expenses									1,856 53	
1525 Totals									4,198 52	
1526 Cost of Appliances sold									2,276 05	
1527 Appliance Expense									2,264 75	
1528 Total cost Appliances									124 30	
1529 Received for Appliances									2,564 56	
1530 f. Loss on Appliances									3,612 53	
1531 f. Profit on Appliances									631 07	
1532 Piping { Material									6808 01	
1533 and Labor									2,170 15	
1534 Con- Mischns. Exp.									4638 01	
1535 nec- Totals									13,432 41	
1536 tions Charged Consumers										
1537 g. Net Cost										
Total cost items a to g										

APPLIANCES INTRODUCED AND CONNECTED.

DOMESTIC FUEL				ILLUMINATING			
Class	No.	No. Cons.	Per Unit Items	Class	No.	No. Cons.	Per Unit Items
1550 Ranges (new)	687		Feet Pipe per App'l	Houses piped by Co.			Avg rooms per house
1551 " (old)	981		Cost Pipe & Fit'gs per Ap.	Houses piped by contract			Cost Pipe & Fit'gs per house
1552 Hot Plates	243		Cost Labor connect'g Ap.	Gas Ares			Cost Labor per house
1553 Water Heaters	161		Total Cost connect'g Ap.	Misc.			Cost Pipe & Labor per house
1554 Heaters & Grates	69		Total Cost connecting per foot pipe				Cost Pipe and Labor per foot Pipe
1555 Misc	51						
1556							
1557							
INDUSTRIAL FUEL				POWER			
1560 RANGES	5		Feet Pipe per App'l	Below 5 H. P.			Feet Pipe per Engine
1561 OVENS	9		Cost Pipe & Fit'gs per Ap.	5 to 9 H. P.			Cost Pipe & Fit'gs per Engine
1562 H P & IRONS	4		Total Cost connecting Ap.	10 to 14 H. P.			Cost Labor on connecting per Engine
1563			Cost Labor connecting Ap.	15 to 24 H. P.			Total Connection per Eng.
1564			Total Cost connecting per foot pipe	25 to 39 H. P.			Total Connection per foot pipe
1565				50 H. P. & Upwards			
1566							
1567							
1570							
1571							
1572							
1573							
1574							

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REPORT FOR

DETAILS OF GAS SALES

	Rate	THIS YEAR		LAST YEAR		Inc. or Dec. Cu. ft.	% Inc. or Dec.
		Cu. ft.	Amount	Cu. ft.	Amount		
1600	Illuminating Gas						
1601							
1602							
1603							
1604	Gross Sales Less Rebates and Allowances Net Sales						
1605							
1606							
1607							
1608	Domestic Fuel Gas						
1609							
1610							
1611							
1612	Gross Sales Less Rebates and Allowances Net Sales	154	661 400	185	593 68		
1613			997 800	1	198 66		
1614		153	663 600	184	395 08		
1615							
1616	Industrial Fuel Gas						
1617							
1618							
1619							
1620	Gross Sales Less Rebates and Allowances Net Sales						
1621							
1622							
1623							
1624	Gas for Power						
1625							
1626							
1627							
1628	Gross Sales Less Rebates and Allowances Net Sales						
1629							
1630							
1631							
1632	Total Sales	153	663 600	184	395 08		

STREET LAMPS

	No. of Lamps	GROSS EARNINGS		Amount	Amt. per Lamp	Hrs. per Burner	Gas per Hr.	Total Gas Cons.
1633	Open Flame Burners	@	per year					
1634		do	@	"				
1635		do	@	"				
1636	Incandescent Burners	@	"					
1637		do	@	"				
1638		do	@	"				
1639		@	"					
1640	Totals							

EXPENSES

1641	Lighting and Extinguishing								Remarks
1642	Repairing								
1643	Cleaning								
1644	Thawing								
1645	Rental								
1646	Inspecting and Testing								
1647									
1648									
1649									
1650									
1651									
1652									
1653									
1654	Net Earnings								
Total Expense									
Net Earnings									

See p. 8.

per M. ft. Gas

REPORT FOR

LOW PRESSURE STREET MAINS (FEET)

Size Inches	In Use First of Year	Laid This Month	Prev. Report This Year	Total This Year	Total To Date	Abandoned During Mo.	Taken Up During Mo.	Total Previous Deductions	Total Deductions to Date	In Use Close This Mo.
1700	186 564	20 126		20 126	206 690		1388		1388	205 302
1701										
1702	81 609	1909		1909	83 518					83 518
1703	82 194	1605		1605	13 799					13 799
1704	4 822				4 822					4 822
1705	9 100				9 100					9 100
1706	3 950				3 950					3 950
1707	1300				1300					1300
1708	1400				1400					1400
1709										
1710										
1711										
1712	200 939	23640		23640	324 599		1388		1388	323 191
1713	56 996	4477		4477	61 473		21		263	61 210
1713										

BOOSTER MAINS.

Size Inches	In Use First of Year	Laid This Month	Prev. Report This Year	Total This Year	Total To Date	Abandoned During Mo.	Taken Up During Mo.	Total Previous Deductions	Total Deductions to Date	In Use Close This Mo.
1714										
1715										
1716										
1717										
1718										
1719										

PUMPING MAINS.

Size Inches	In Use First of Year	Laid This Month	Prev. Report This Year	Total This Year	Total To Date	Abandoned During Mo.	Taken Up During Mo.	Total Deductions	Total Deductions to Date	In Use Close This Mo.
1720										
1721										
1722										
1723										
1724										
1725										

COST OF STREET MAINS. (ALL KINDS.)

COST MAINS LAID THIS MONTH.					COST MAINS LAID THIS YEAR.								
Size	AMOUNT			Per Foot Mat'l.	Total	Labor	AMOUNT			Per Foot Mat'l.	Total		
	Labor	Material	Total				Labor	Material	Total				
1726						2945	66	2227	17	4572	83	099	193
1727													
1728						355	95	624	28	980	23	186	512
1729						327	41	768	57	1095	98	204	682
1730													
1731													
1732													
1733													
1734													
1735													
1736													
1737													
1738						3029	02	3620	02	6649	04	489	898
Totals													

This Year		This Year		Recapitulation.	
Cost Low Pressure Mains laid	\$ 6.649.04	\$		Miles Low Pressure Main	61.2.10
" Booster	"	\$		" Booster Main	
" Pumping	"	\$		" Pumping Main	
Total cost Mains laid	\$ 6.649.04	\$		Total Main Mileage	61.2.10
Deduct value of Mains taken up	\$ 307.48	\$			
Net cost of Mains	\$ 6.341.56	\$			

E. L. King
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SERVICE PIPES LAID

COST OF SERVICES

COST OF SERVICES

APPLIANCES

APPLIANCES

STREET LAMPS

STREET LAMPS

Total

REPORT FOR

SPECIAL EXPENSE ACCOUNTS

CHARGED TO			Balance Special Accounts Close Month				
No.	ACCOUNT	Total Expense	No.	Account	Amount	Debit	Credit
1800	Coal Stock Expense,	1953 16	500	Coal Stock,	1953 16		
1801	Coke Stock Expense,	2742 56	502	Coke Stock,	2742 56		
1802	Tar Stock Expense,	1215 27	503	Tar Stock,	1215 27		
1803	Ammonia Stock Expense,		504	Ammonia Stock,			
1804	Pur. Dep't and St. Room,	2203 16					
1805	Barn Expense,	2757 79					
1806	Preliminary Expense,						
1807	Lamps Discontinued,		1818b	St. Lamp Mntc.,			
1808	Mains Abandoned,		1300	St. Main Mntc.,			
1809	Steam,	7030 08					
1810	Rent,	3165 88	1304b	Meter Dep't Exp.,			
			1403	Coll. O. Rent,			
			1504	Exc. O. Rent,			
			1805	Barn Exp.,			
1811	Contingent Bench Repairs,	1311 68	1011	Bench Repairs,	1311 68		
1812	Gen. W'ks Bldgs. Repairs,	407 59	1017	Bldgs. Rep. C. G.	175 00		
			1113	" " W. G.	232 59		
			1213	" " P. G.			
1813	General Apparatus Repairs,	1269 13	1018	App. Rep. C. G.	473 49		
			1114	" " W. G.			
			1214	" " P. G.	564 81		
1814	Sundry Labor,	1566 86	1019	Sund. Lab. C. G.	1002 05		
			1115	" " W. G.			
			1215	" " P. G.	830 40		
1815	Works Expense and Supplies,	2306 45	1020	Wh. Ex. & Sup. C. G.	1476 05		
			1116	" " W. G.			
			1216	" " P. G.	1034 78		
1816	General Supervision,	2892 76	1021	Gen. Sup. C. G.	1857 98		
			1117	" " W. G.			
			1217	" " P. G.			
1817	Dist. Holder Station,		1022	Dis. H. Sta. C. G.			
			1118	" " W. G.			
			1218	" " P. G.			
1819	Domestic Fuel App'cs,	13597 45	1507	Prom. N. Bus.,	13597 45		
			308	Const.,			
1820	Ill'g Pipes and Fixtures,	18296	1507	Prom. N. Bus.,	18296		
			309	Const.,			
1821	Industrial Gas App'cs,	17 92	1507	Prom. N. Bus.,	17 92		
			310	Const.,			
1822	Gas Engines and Piping,		1507	Prom. N. Bus.,			
			311	Const.,			
1823	Taxes Accrued,	10634 72	1508	Taxes, Gas.	6690 48		
				ELEC	3344 24		
1824	Interest Accrued,	60576 3	209	Interest,	60576 63		
1825	Bad Debts,	2945 10	909	Bad Debts, Gas	2790 00		
				ELEC	1155 10		
Totals,			Ex. C. 11				

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REPORT FOR

STEAM ACCOUNT No. 1809.

DEBITS.		CREDITS.	
(a) Fuel		Charged to	
1900 Tons Elec DEPT @	3 600 00	1014 Coal Gas Steam,	1 500 00
1901 Tons, Electricity @	1 159 97	1100 Water Gas Generator,	4 045 08
1902 Tons,		1110 do Par. and St.	490 00
1903 Total Fuel,		1201 Pumping Purchased Gas,	
(b) Water		1210 Purification & St. do	
1904 Gals. City Water, @		1800a Coal Stock Expense,	
1905 Gals. Pumped by Co. cost		1803a Ammonia Stock do	
1906 Total Water,	1 666 11	1815 Works Expense,	
(c) Labor		1817 District Holder Station,	
1907 Firemen, @			
1908 Helpers, @			
1909 @			
(d) Repairs,			
1910 Labor,			
1911 Material,			
1912 Total Repairs,			
1913 Total Cost,	a-b-c-d		
1914 Less Steam Sold,			
1915 Net Cost Steam,	7 030 08	Total Credits,	7 030 08
1916 Basis of Steam Charges			
1917			
1918			
1919			
1920			

BARN EXPENSE ACCOUNT No. 1805.

(Horses)

	Total	Per Horse	Charged to	
1925 a Wages,	653 81	1305 00		185 00
1926 Rent,	50 00	1305 R		165 00
1927 Hay,	317 84	1306		205 00
1928 Oats,	552 00	3200		160 00
1929 Oil Meal and Bran,	34 83	3204		130 00
1930 Boarding TEAMSTER Hire	110 00	3265		85 00
1931 Fuel, Light and Water,	31 00	3271		34 00
1932 Med. Attendance and Medicines,	10 24	1815		115 00
1933 Barn Repairs,	161 85	302		160 00
1934 Horse Shoeing,	41 50	351		340 00
1935 Insurance on Horses,	1952 13	1861 e		144 50
1936 Board for horses,	125 54	18204		62 50
1936a Total, (a)	223 82	1819 00		321 29
1937 b Harness Repairs,	276 50	1300		92 50
1938 Wagon Repairs,	43 50	1301		11 00
1939 Insurance on Wagons & Harness,	135 30	3008		50 00
1940 Total, (b)	804 66	1802		23 00
1941 Total Barn Expense,	2757 79	3272		35 00
1942				
1943				

RENT ACCOUNTS.

1950 Rental paid for Office,	1500 00	3231 R	Charged to	360 00
1951 do for Meter Shop,	420 00	1403	Rent of Coll. Office,	403 30
1952 do for Meter Shop,	520 00	1504	kent of General Office,	482 60
1953 do for Barn,	192 45	1304	Meter Dep. Expense,	80 00
1954 Rental Credited Rents Receivable,	487 50	3227	Barn Expense,	31 00
1955 For Office	21 03	3215		400 00
1956 For Office	21 90	1819 R		332 00
1957 For Office		1819 R		360 00
1958 For Office		1819 R		432 50
1959 Total,	3165 88	1804		285 58
1960				

REPORT FOR

PAY ROLL DATA

	Account No.	Total Wages	Total Hours	Avg. Hrs. per day charged this acc't	Working hours per day	Average No. of men	Avg. wages per hour	Avg. wages per day
MANUFACTURING—Coal Gas								
2000	1010	4 696 65						
2001	1011	63 48						
2002	1012	131 92						
2003	1015a	453 52						
2004	1017	252 82						
2005	1018	445 80						
2006	1019	592 11						
2007	1021							
2008		1519 94						
2009								
2010								
2011		8156 04						
MANUFACTURING—Water Gas								
2012	1106	2878 70						
2013	1107	1167 13						
2014	1108	36 99						
2015	1111	604 91						
2016	1113	93 02						
2017	1114	101 42						
2018	1115	511 26						
2019								
2020								
2021								
2022								
2023		5392 43						
PURCHASED GAS								
2024	1201							
2025	1211							
2026	1213							
2027	1214							
2028	1215							
2029	1217							
2030								
2031								
2032								
DISTRIBUTION								
2033	1300	244 53						
2034	1301	248 20						
2035	1302	396 29						
2036	1303	824 59						
2037	1304	145 26						
2038	1305	1917 65						
2039	1306	1557 15						
2040								
2041								
2042		5433 67						
COLLECTION								
2043	1400	930 03						
2044	1401	3 668 72						
2045	1402	140 12						
2046	1404	138 82						
2047	1405	655 50						
2048		42 15						
2049								
2050								
2051								

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REPORT FOR

PAY ROLL DATA

		Account No.	Total Wages	Total Hours	Ave. Hrs. per day charged this acct	Working hours per day	Average No. of men	Ave. wages per hour	Ave. wages per day
GENERAL EXPENSE									
2052	Executive Salaries	1500	900 00						
2053	Clerical Salaries	1501	493 62						
2054	Legal Expenses	1505							
2055									
2056			1898 62						
SPECIAL EXPENSE ACCOUNTS									
Total									
2057	Coal Stock Expense	1800	1871 07						
2058	Coke " "	1801	2118 44						
2059	Tar " "	1802	285 72						
2060	Ammonia Stock Expense	1803							
2061	Purchasing Dept and Storeroom	1804	633 67						
2062	Barn Expense	1805	725 77						
2063	Preliminary Expense on New Work	1806							
2064	Lamps Discontinued	1807							
2065	Mains Abandoned or Taken up	1808							
2066	Steam	1809							
2067	Rent	1810	487 19						
2068	Contingent Bench Repairs	1811	622 47						
2069	General Works Bldgs. Repairs	1812	149 89						
2070	General Apparatus Repairs	1813	292 74						
2071	Sundry Labor	1814	1495 61						
2072	Works Expense and Supplies	1815	45						
2073	General Supervision	1816	2854 96						
2074	District Holder Station	1817							
2075	Street Lamp Maintenance	1818							
2076	Domestic Fuel Appliances and Connections	1819	8582 88						
2077	Illuminating Pipes and Fixtures	1820	344 89						
2078	Industrial Gas Appliances and Con.	1821	20 90						
2079	Gas Engines and Connections	1822							
2080	Gas Engines and Connections		317 78						
2081	Gas Engines and Connections		726 85						
2082									
2083									
Total			21532 28						
STOCK									
2084	Purifying Material Stock	505	450						
2085	Main Stock	506	71 26						
2086	Steel Pipe Stock	507	161 12						
2087	Fittings Stock	508	24 34						
2088	Service Stock	509							
2089	Lamp Stock	510							
2090	Gas Engine Stock	511							
2091	Appliance Stock	512	519						
2092	Miscellaneous Stock	513	205						
2093									
2094									
2095									
2096									
2097									
2098									
2099									
2100									
2101									
2102									
2103									
2104									
2105									
Total			21846						

REPORT FOR

PAY ROLL DATA

	Account No.	Total Wages	Total Hours	Avg. Hrs. per day charged this acc't	Working hours per day	Average No. of men	Avg. wages per hour	Avg. wage per day
CONSTRUCTION								
2106	300	542 19						
2107	301	2931 08						
2108	302	3998 55						
2109	303	2 65						
2110	304							
2111	306	3 00						
2112		63 38						
2113								
2114								
2115								
2116								
2117								
2118								
2119								
2120		7 570 85						
SUMMARY								
2121	Line							
2122	2011	8 156 04						
2123	2023	5 392 43						
2124	2032							
2125	2042	5 433 67						
2126	2051	5 575 34						
2127	2056	1 393 62						
2128	2083	8 1 512 28						
2129	2105	2 68 46						
2130	2120	7 570 85						
	Total	55 322 69						

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REPAIR AND MAINTENANCE ACCOUNT

	THIS YEAR			LAST YEAR		
	Labor	Material	TOTAL	Per M. Mid.	TOTAL	Per M. Mid.
2200						
2201						
2202						
2203						
2204						
2205						
2206						
2207						
2208						
2209						
2210						
2211						
2212						
2213						
2214						
2215						
2216						
2217						
2218						
2219						
2220						

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REPORT FOR

GAS USED BY COMPANY

WHERE USED	Cu. Ft.	Charged to Acct No.	Rate	Amount	REMARKS
2221	49 800			19 38	
2222	78 100			31 18	
2223	103 500			40 68	
2224	128 100			50 71	
2225	13 600			5 36	
2226	47 900			18 81	
2227	16 000			6 54	
2228					
2229					
2230					
2231					
2232					
2233					
2234					
2235					
Totals,	498 200			172.66	

*Blue Dept
Meter Room
Office
Exhibition
Demonstration
Show Room
Phone Room*

COKE USED BY COMPANY

WHERE USED	Weight	Charged to Acct No.	Rate	Amount	REMARKS
2236	655 820	1002	550	1791.64	
2237	507 5543	1101	550	1341.67	
2238	192 480	3000	100	154.94	
2239					
2240					
2241					
2242					
2243					
2244					
2245					
2246					
2247					
2248					
2249					
2250					
2251					
2252					
2253	592 3843		1	582.62	

*Branch
Generator
Coke Dept*

CLERICAL SALARIES DATA

WHERE EMPLOYED	No. Clerks	Total Salaries	CHARGED TO	Amount
2254 Gas Works		565.66	1816 Works Supervision	565.66
2255 Street Department		274.00	1302f Street Dept Expense	274.00
2256 Meter Department			1304a Meter "	
2257 Collection Office	3	670.97	1401 Collection Clerical Sal.	670.97
2258 General Office		498.62	1501 General Office "	498.62
2259 Purchasing Department		937.93	1804a Purchasing Dept	457.92
2260 Appliance Department,		540.00	1804b Storeroom Expense	480.00
2261 New Bus. Department		620.00	1801b Coke Expense	
2262			1802a Tar Expense	
2263			1507 Prom. New Business	1160.00
2264			Appliance Dept	
2265				
2266				
2267				
2268				
Total	7	1102.18	Total	71102.18

Ex. C.P. 16.

REPORT FOR

COAL STOCK

	Tons	Cost	Per Ton
2300 Stock first of month	499 69	2 456 10	4 89
2301 Received during month	8306 89	43 578 14	5 246
2302 Coal Stock Expense as below		1 953 16	2 35
2303 Total Cost	8806 58	47 987 40	5 476
2304 Used during month	8625 31	46 417 82	5 381
2305 Stock close of month	181 27	1 569 18	8 6581

2307 Coal Stock Expense	(1800a)
2308 do	(1800b)
2309 do	(1800c)
2310	
2311	
2312 Total Expense	(to line 2302)

(to line 2302)

COKE STOCK

	Total Tons	Total Cost	Av. Per Ton
2320 Stock first of month	347 03	6 456 44	18 60
2321 Received or made during month	4743 76	22 646 11	4 713
2322 Coke Expense as below		2 742 56	5 78
2323 Total Cost	4743 76	31 845 11	6 713
2324 Used during month	2946 76	15 898 11	5 394
2325 Sold during month	1318 18	7 797 22	5 916
2326 Total Sold and Used	4265 14	23 695 33	5 555
2327 Stock close of month	825 65	8 149 78	9 870

2328 Coke Stock Expense	(1801a)
2329 do	(1801b)
2330 do	(1801c)
2331 do	(1801d)
2332 do	
2333 Total Expense	(to line 2327)

(to line 2327)

TAR STOCK

	Gallons	Cost	Per Gal.
2340 Stock first of month	78 967	2 791 03	
2341 Made and bought during month	65 848	1 316 96	
2342 Tar Expense as below		1 215 27	
2343 Total Cost	144 815	5 323 26	
2344 Sold during month	41 115	2 051 31	
2345 Stock close of month	103 700	3 271 95	

2347 Tar Stock Expense	(1802a)
2348 do	(1802b)
2349 do	(1802c)
2350	
2351	
2352 Total Expense	(to line 2345)

(to line 2345)

AMMONIA STOCK

	Pounds	Cost	Per Lb.
2360 Stock first of month			
2361 Made during month			
2362 Ammonia Expense as below			
2363 Total Cost			
2364 Sold during month			
2365 Stock close of month			

2367 Ammonia Expense	(1803a)
2368 do	(1803b)
2369 do	(1803c)
2370 Total Expense	(to line 2365)

(to line 2365)

by C. J. 17

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REPORT FOR

COAL USED BY COMPANY							
	TONS	COST	WHERE USED	Account No.	TONS	COST	
2375	Used during month (2304)	862531	4641782	Carbonized Bunch 3rd Blue Plant Sold.	1000 1002 3000	797575 82488 20142 2325	4186498 330456 111808 13020
2376							
2377							
2378							
2379							
2380							
2381							
2382							
2383							
2384							
2385							
2386							
2387	Total	862531	4641782	Total	862531	4641782	
TAR SOLD AND USED							
	GALLONS	COST	WHERE USED	Account No.	GALLONS	COST	
2390	Sold and used (2344)	41115	205078	Sold Used in Pitch Plant Used for Gas Making Blue Plant		21421	165690
2391							
2392							
2393							
2394							
2395							
2396							
2397							
2398							
2399	Total	41115	205078	Total	41115	205078	

REPORT FOR

PINTSCH DEPARTMENT.

	MANUFACTURING	Plant	Output	Output Per M.	TOTAL		TOTAL PER M.	
					This Year	Last Year	This Yr.	Last Yr.
2400	Oil							
2401	Bench Fuel,							
2402								
	Gals, @							
	Tons, @							
	" @							
2403	Total Cost Material,							
2404	Tar,							
2405	Hydrocarbon Oil,							
2406	Total Residuals,							
2407	Net Cost Materials,							
2408	Retort House Labor,							
2409	Bench Repairs,							
2410	Retort House Expense,							
2411	Steam,							
2412	Purification,							
2413	Works Repairs,							
2414	Sundry Labor,							
2415	Works Expense and Supplies,							
2416	Total Manufacturing,							
	DISTRIBUTION							
2420	Car Fillers,							
2421	Pipe Line Repairs,							
2422	Hose,							
2423	Sundries,							
2424	Total,							
2425	Gas Lost,							
2426	Total Distribution,							
2427	Total Manufg and Distribution Exp,							

GROSS EARNINGS.

[illegible]

ex-2 J. 1904

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EX. D—M. E. W.

MANUFACTURING AND EXPENSE REPORTS OF GAS DE-
PARTMENT FOR YEAR ENDING JUNE 30", 1907.

REPORT FOR

Year ending June 30/07

GROSS EARNINGS.

FROM SALE OF GAS		AMOUNTS		Increase or Decrease	Receipts per M. Sold	
		This Year	Last Year		This Year	Last Year
900	Illuminating Purposes,					
901	Domestic Fuel do					
902	Industrial Fuel do					
903	Power do					
904	Street Lamp do					
905	Total from Gas Sales,	200 690 89			1.1985-	
906	Meter charge on Minimum Bills	672 50			1.0040	
907	Forfeited Discount;	3 862 93			1.0201	
908	Total Earnings from Gas,	204 728 82			1.2226	
909	Bad Debts,	2265 00			1.0135-	
910	Gross Earnings Gas Dep't,	202 463 82	177 554 81		1.2091	
911	Operating Expenses (Total) (917)	137 817 47	110 468 74		1.8230	
912	Net Earnings Gas Dep't,	64 646 35-	67 086 07		3.8861	

SUMMARY OF OPERATING EXPENSES.

	Plant	Output	Consumers	Meters	Total Cost	
					This Year	Last Year
913	Manufacturing (1260)	12 146 33	68 882 84		81 029 17	
914	Distribution (1309)	13 069 90	4092 53	2 337 71	19 500 19	
915	Collection (1406)	29 929 87	5307 12	2 057 12	7 364 24	
916	General (1509)	55 146 13	9399 65	4 394 83	29 923 87	
917	Totals				137 817 47	

SUMMARY OF OPERATING EXPENSES, PER UNIT.

	Per M. Sold		Per Consumer		Per Meter	
	Plant	Output	Consumers	Meters	Consumer Charges	Meter Charges
913a	Manufacturing (1260)	0725 4116	4839			
914a	Distribution (1309)	0780	0244 0140	1164	6932 3958	1.0890 6518
915a	Collection (1406)	1787	0317 0123	0440	8990 3484	1.2474 8454
916a	General (1509)	3292	4114 0561	0263 8230	10922 7442	2.3364 1492
917a	Totals				THIS YEAR 47000	LAST YEAR 46500

SUMMARY OF GAS SALES.

	Total Sales (Cu. ft.)		No. of Meters		Av'g Sale per Meter		Av'g Sale per Capita	
	This Year	Last Year	This Yr.	Last Yr.	This Yr.	Last Yr.	This Yr.	Last Yr.
918	Ill'tg Gas,							
919	Dom Fuel Gas,							
920	Ind. Fuel Gas,							
921	Power Gas,							
922	Total Fuel Gas,							
923	Total Private Sales, 167 445 600		6 578		27 260			
924	Street Lamps,		No. Lamps		Av'g per Lamp			
925	Total Sales,						3572	

CONSUMERS.

	No. Using	Both	Total No. Consumers		Total Using	
			Ill'tg Gas Only	Fuel Gas Only	Ill'tg Gas	Fuel Gas
925	First of <i>Month</i>					
927	New during <i>Year</i>					
928	Total,					
929	Off during <i>Month</i>					
930	Close of <i>Month</i>					
931	First of Year,					
932	Gain or Loss,					

CONSUMER DATA.

	This Year	Last Year	This Year	Last Year
941	Ill'tg Sales per Ill'tg Consumer		Inhabitants per Ill'tg Consumer	
942	Dom. F. " " Dom. F. "		" " Dom. Fuel "	
943	Indust'l " " Ind. "		" " Ind. Fuel "	
944	Power " " Power "		" " Power "	
945	Average Sales per Consumer,	28 360	" " Consumer	7962

by D. P. H. xx

MANUFACTURING DEPARTMENT. COAL GAS.

1000	Plant	Expense	Output	Expense	per M.	Total Cost		Total Cost per M
						This Year	Last Year	
1001	Coal Carbonized	7266 34 ⁴ @	49030 66	6405	43	030 66		6405
1002	Enricher	62.80 <i>Per ton</i> @	218 63	0033		218 63		0033
1003	Bench Fuel	521.01 <i>Per ton</i> @	5761 75	0857	5	761 75		0857
1004	Total Cost C. G. Mfg. Mat'l		49011 04	7295	49	011 04		7295
1005	Coke Residual	@	21020 43	3129	21	020 43		3129
1006	Tar do	@	1234 44	0184	1	234 44		0184
1007	Ammonia do	@						
1008	Carbon do	@						
1009	Total Residuals		22254 87	3313	22	254 87		3313
1010	Net Cost C. G. Mfg. Material		26756 17	3982	26	756 17		3982
1011	Retort House Labor		4901 51	0727	5	452 51		0812
1012	Bench Repairs		3116 89	0464	3	116 89		0464
1013	Retort House Expense							0039
1014	Total Cost Generating Coal Gas		55540	35039 01	5214	35	594 01	5297
1015	Steam		1500 00	0228	1	500 00		0223
1016	Purifying C. G., Labor, Exp. & Repairs		481 37	0072		481 37		0072
1017	do Material		360 11	0054		360 11		0054
1018	General Works, Bldgs., Repairs (C. G.)		866 85			866 85		0128
1019	do Apparatus, do (C. G.)		1106 96			1106 96		0164
1020	Sundry Labor (C. G.)		1244 39			1244 39		0185
1021	Works Expense and Supplies (C. G.)		818 17			818 17		0122
1022	General Supervision (C. G.)		961 56			961 56		0143
1023	District Holder Station (C. G.)							
1024	Total Purification and Storage		4991 93	2341 48	0349	7	833 41	1091
	Total Cost Coal Gas in Holder		5546 93	37380 44	5563	42	929 42	6368

COAL GAS STATISTICS.

COAL GAS STATISTICS.		This Year	Last Year
1029	Coal Gas made	67, 189, 600 Cu. ft.	Cu. ft.
1030	Kind of Coal used	<i>New, Hancock, rough,</i>	
1031	Coal Carbonized	72 66.3 40 Tons	Tons
1032	Yield per lb. Coal	4.6 Cu. ft.	Cu. ft.
1033	Cost of Coal per ton	\$ 21	\$
1034	Average number retorts in use	316 Lbs.	Lbs.
1035	Average charge per retort	8760 Cu. ft.	Cu. ft.
1036	Average make per retort.	23000 Cu. ft.	Cu. ft.
1037	Average make per man charged acc't No. 1010	1250 Lbs.	Lbs.
1038	Coke made per ton Coal carbonized	138 Lbs.	Lbs.
1039	Coke used for Bench Fuel	173 Lbs.	Lbs.
1040	Coal do do	\$ 88	\$
1041	Receipts for Coke per ton sold	\$ 88	\$
1042	do per ton Coal carbonized		
1043	Tar made per ton Coal carbonized		
1044	Receipts for Tar per do		
1045	do per gal. sold		
1046	Ammonia made per ton Coal carbonized		
1047	Receipts for Ammonia do		
1048	do per lb. sold		
1049	Carbon sold		
1050	Price received for Carbon per ton		
1051	Gas Purified per bu. per change		
1052	Spent Oxide sold Tons @ \$		
1053	Illuminating Power { Max. 18.1 C.P.		
1054	{ Min. 16.6 C.P.		
1055	{ Avg. 17.4 C.P.		
1056	Heat Units (B. T. U.) { Max. 701.5 B.T.U		
1057	{ Min. 614 B.T.U		
1058	{ Av. 659 B.T.U		
1059			
1060			
1061			

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REPORT FOR

MANUFACTURING DEPARTMENT. WATER GAS.

	Plant Expense	Output Expense	Output Per M.	TOTAL COST		Tot. Cost per M This Yr. Last Yr.
				This Year	Last Year	
1100 Steam for Generating Water Gas, Generator Fuel, 2721.23 Tons @		4531 87	0348	4531 87		0348
1101 Enricher, 4676 92 @		14961 74	1148	14961 74		1148
1102 Total W. G. Making Material, 11910		19287 68	1479	19287 68		1479
1104 Water Gas Tar Residual Acc't,		38731 29	2976	38731 29		2976
1105 Net Cost W. G. Mfg. Material,		238 20	0018	238 20		0018
1106 Gas Making Labor,		38543 09	2958	38543 09		2958
1107 Repairs to W. G. Gen. Apparatus,		3467 23	0266	3467 23		0266
1108 W. G. Generating House Expense,		1312 23	0101	1312 23		0101
1109 Total Cost Generating W. G.,		81 54	0006	81 54		0006
1110 Steam,		443 404 11	3331	443 404 11		3331
1111 Purifying W. G. Labor, Exp. and Rep		545 00	0042	545 00		0042
1112 Purifying W. G. Material,		806 60	0062	806 60		0062
1113 General Works Repairs, Buildings,		325 50	0025	325 50		0025
1114 General Apparatus Repairs,	471 24			471 24		0036
1115 Sundry Labor,	928 60			928 60		0071
1116 Works Expense and Supplies,	1776 57			1776 57		0136
1117 General Supervision,	1556 66			1556 66		0120
1118 District Holder Station,	1866 37			1866 37		0143
1119 Total Cost Purification and Storage,	6599 40	1677 10	8129	6599 40		0635
1120 Total Cost Water Gas in Holder,	6599 40	145 081 21	3460	6599 40		3966

WATER GAS STATISTICS.

	This Year	Last Year
1130 Water Gas Made,	130 : 329 . 900 Cu. Ft.	Cu. Ft.
1131 Enricher Used,	467 . 692 .	Gals.
1132 Enricher Used per M.,	3 . 6	Gals.
1133 Candles per Gal. Enricher,	5 . 4 ✓	Lbs.
1134 Boiler Fuel per M.,	41 . 7	Lbs.
1135 Generator Fuel per M.,	28 . 047 .	Cu. Ft.
1136 Number of Runs,	4 . 650 .	Cu. Ft.
1137 Average Make per Run,	89 . 300 .	Cu. Ft.
1138 Average Make per Gas Maker per 24 Hours,		Gals.
1139 Gas Purified per Bu. Material per Change,		Gals.
1140		
1141 Tar Made per M. Cu. Ft. Gas,		
1142 Tar Made per M. Gal. Oil Used,		
1143		
1144		
1145 Illuminating Power Water Gas,	20 . 8	C. P.
1146	18 . 4	C. P.
1147	19 . 4	C. P.
1148	662 . 9	B. T. U.
1149 Heat Units. (B. T. U.)	572 . 8	B. T. U.
1150	608 . 6	B. T. U.
1151		
1152		
1153		
1154		
1155		
1156		
1157		
1158		
1159 Illuminating Power,	19 . 4	C. P.
1160	18 . 1	C. P.
1161	663 . 9	C. P.
1162 Heat Units. (B. T. U.)	605 . 14	B. T. U.
1163	633 . 0	B. T. U.
1164		
1165		

MIXED GAS STATISTICS.

	Max.	Min.	Avg.	
1158				
1159 Illuminating Power,	19 . 4			C. P.
1160	18 . 1			C. P.
1161	663 . 9			C. P.
1162 Heat Units. (B. T. U.)	605 . 14			B. T. U.
1163	633 . 0			B. T. U.
1164				B. T. U.
1165				

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REPORT FOR

MANUFACTURING DEPARTMENT. PURCHASED GAS.

	Plant Expense	Output Expense	Output Per M.	Total Cost		Tot. Cost per M.
				This Year	Last Year	This Yr. Last Yr.
1200	Crude Gas Purchased,					
1201	Power for Pumping,					
1202	Enricher,					
1203						
1204						
1205	Total Cost Materials,					
1206	Tar,					
1207	Ammonia,					
1208	Total Residuals,					
1209	Net Cost Materials,					
1210	Steam,					
1211	Purifying Pur. Gas, Labor, Exp & Rep,					
1212	" " Material,					
1213	General Works Rep. Bldgs.,					
1214	General Apparatus Repairs,					
1215	Sundry Labor,					
1216	Works Expense and Supplies,					
1217	General Supervision,					
1218	District Holder Station,					
1219						
1220						
1221	Total Purification and Storage,					
1222	Total Cost Purchased Gas in Holder,					
1223						
1224						
1225						
1226						
1227						
1228						
1229						

MANUFACTURING DEPARTMENT. MIXED GAS.

1250	Total Cost Manuf'g Coal Gas,	5346.43	37	380	49	5564	42	927	42		6388
1251	" " Water Gas,	6599	40	45	081	21	3460	57	680	61	3966
1252	" " Coal & Water Gas,	12146	33	82	461	70	4475	94	608	03	4789
1253	" " Gas Purchased,										
1254	" " All Gas Manufacturing Dept.,	12146	33	82	461	70	4475	94	608	03	4789
1255	Output Cost Gas Lost and Unacct'd For			12	241	06	.0650	12	241	06	.0620
1256	" " Used by Co.,			227	82	.0012		227	82		.0012
1257	Total Deductions from Manuf'g Costs,			12	468	88	.0632	12	468	88	.0632
1258	Net Cost in Holder of Gas Charged Stock Acct.	12146	33	69	992	82	4179	82	139	15	4905
1259	Difference Stock on Hand First and Last of Mo.			1	109	98	.0866	1	109	98	.0866
1260	Net Cost in Holder of Gas Sold,	12146	33	68	882	84	4113	81	029	17	4839

GAS ACCOUNT. CUBIC FEET.

	This Year		Last Year		Increase		Decrease		Per Cent. of Total
1280	Gas on Hand First of Month,	219	100						
1281	Coal Gas Made during 1 st Month,	67	189	600					34.02
1282	Water " " "	130	379	900					65.98
1283	Gas Purch'd " "								
1284	Total Gas Made and Purch'd,	197	519	500					100%
1285	Total Gas to Account for,	197	738	600					100%
1286	Gas on Hand at Close of Month,	197	324	700					
1287	Gas Delivered to Mains,	197	513	600					100%
1288	Gas Sold,	167	445	600					84.76
1289	Gas Used by Co.,	167	535	100					.27
1290	Total Gas Sold and Used,	167	980	700					85.03
1291	Gas unaccounted for,	29	533	300					14.97

REPORT FOR

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DISTRIBUTION DEPARTMENT EXPENSE

	Charge Plant		Charge Consumers		Charge Meters		TOTAL COST		TOTAL COST Last Yr.
	Amount	Per M Sold	Amount	Per Cuh	Amount	Per Meter	This Year	Last Year	
1300 Street Main Maint'n'c.	614.55	0037					614.55		
1301 Service			309.92	0059			329.92		
1302 Street Dep't Expense,	214.34	0012	358.99	0608			573.33		
1310 Pumping Gas,									
1303 Meter Maintenance.					1224.23	1949	1224.23		
1304 Meter Dep't Expense,					446.68	0711	446.68		
1305 Setting & Rem. Meters,					666.80	1062	2107.25		0129
1306 Gratuitous Work,			11490.46	2524			1913.17		0114
1307 Total above Items,	829.89	0049	4092.53	6922	2337.71	3722	7259.13		0483
1308 Gas Lost & Unacctd. for	12.24	060731					1224.06		0781
1309 Total Distrib'n. Ex.	13.06	0780	4092.53	6922	2337.71	3722	19507.19		1164

DISTRIBUTION DEPARTMENT DATA

METER ACCOUNT																
	EQUITABLE															
	No.	No.	3	5	10	20	30	45	60	80	100	150	200	250	300	TOTAL
1320	Owned by Co. first of year															
1321	Bought during 12 Mo.,		3021	3121	48	13	7	13	5		6	2				6236
1322	Total,			175		4										179
1323	Owned by Co. first of year		3021	3296	48	17	7	13	5		6	2				6415
1324	Owned this Date,		70													70
1325			2451	3296	48	17	7	13	5		6	2				6345
1326			2756	3283	45	17	7	13	5		5	2				6133
1327																
1328																
1329																
1330			1	6	1	1	1	1	1	1	1	1	1	1	1	8
1331																
1332			2757	3289	46	17	7	13	5		5	2				6141
1333			194	7	2	1	1	1	1	1	1	1	1	1	1	204
1334																
1335																
1336																
1337																
			264	168	2	4	1	1	1	1	1	1	1	1	1	98

METERS

	PER MILE MAIN		PER 1000 POPUL'N		NO. SET		NO. REMOVED		No.	Per Ct. of Total No.	Cost Each
	This Yr.	Last Yr.	This Yr.	Last Yr.	This Yr.	Last Yr.	This Yr.	Last Yr.			
1340 Illuminating,									2824	28.36	
1341 Domestic Fuel,											
1342 Industrial "									803	08.06	
1343 Power Gas,									3296	33.11	
1344 Total Meters,	100.85		1335		3296		2994		2994	30.07	
1345 No. Consumers,	95.22		125.6								
1346 No. Service Pipes,	41.7		121.8						40	00.40	
1350 Cost meter Maintenance per Meter passing through Shop,											
1351 " " " in Use,											
1352 No. Leaks at Connections,											
1353											
1354											
1356 Service Maintenance per Complete Service in Use,											
1357 " Repairs per Service handled											
1358 No. Services Repaired,											
1359 No. Services Renewed,											
1360 No. Services Changed,											
1361 No. Services Cleaned,											
1362 No. Leaks at services,											
1363 No. Leaks in Broken Mains,											
1364 No. Leaks Account Defective Main Joints,											
1365											
1366											
1367 Leakage per Mile Actual Main, This Year,			439355								
1368 " " 3-inch " " Last Year,			400667								

\$.0591

Cost each,
" "
" "
" "
" "
" "
" "

Leakage per Mile Actual Main, This Year, 439355
" " 3-inch " " Last Year, 400667
Cin. ft. " "

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REPORT FOR

COLLECTION DEPARTMENT

	Charge Consumers		Charge Meters		Total Cost		Total Per M. Sold	
	Amount	Per Unit	Amount	Per Meter	This Year	Last Year	This Year	Last Year
1400	Reading Meters.							
1401	Collection Clerical Salaries.	683.01	.1157	218.52	.0499	996.53		0060
1402	Collection Office Expense.	2,920.78	.4446	1,346.30	.2144	4,267.08		0055
1403	Rent of Collection Office.	480.09	.0813	219.27	.0349	649.36		0042
1404	Delivering Bills.	386.63	.0655	178.03	.0284	564.66		0033
1405	Outside Collections.	163.79	.0277			163.79		0010
1406	Total Collect'n Expenses.	672.82	.1140			672.82		0040
		5,307.12	.8988	2,057.12	.2276	7,364.24		0440

COLLECTION DEPARTMENT DATA

READING METERS

	Total No.		First Reading		Stragglers and Retards	
	Total Hours	Per Hour	No. Meters	Cost Each	No.	Hours
1410	Meters.	64987	2250.99	0346	25.48	0191
1411	Meter Readers.					10955
						449.19
						0191

CLERICAL SALARIES

	Amount	Cost Per Consumer	Cost Per Meter	No. Clerks	Average Pay Each
1415	Total Acct No. 1401.	4267.08	7227	7118	6.75
					632.19

DELIVERING BILLS

	No. Bills	Labor	Expense	Total Cost	Tot. per Bill
1420	By Mail.	679	13.58	13.58	.0266
1421	By Co.'s Employees.	61930	163.79	163.79	.0026
1422	Called for at Office.	554			
1423	Totals.	65163	163.79	13.58	177.37
					6028

COLLECTIONS

	Gas Bills		Per Cent of		Cost of Collection	
	No.	Amount	Total No.	Total Amt	Amount	Per Bill
1425	Total Private Gas Bills. (Line 908 previous month)	207072.97				
COLLECTIONS						
1426	At Office by Mail.	2785	13.95190	4.57	6.99	.1848
1427	At Office by Tellers.	54847	16.965757	8918	85.01	.1152
1428	Bills Deposited in Banks.	1887	9.39860	3.09	4.21	.1643
1429	Total at Office.	59019	192.00807	96.84	96.21	.1201
1430	By Co.'s Salaried Collectors.	1423	7.56181	3.16	379	.1451
1431	By Co.'s Pay Stations.					
1432	By Express Co.'s.					
1433						
1434	Total Outside Collections.	1423	7.56181	8.16	379	.1451
1435	Total Collections.	60942	199.56988	100%	100%	.1208
1436	Balance Outstanding Close of Month.	7503.09				

ARREARS FOR CURRENT MONTH

	ARREARS	Amount Charged to Arrears Each Date	Collected during Mo. on each Mo.'s Arrears	Previous Collections Reported	Total Collections on Each	Balance outstanding on Each at Close of Month	Amount of Each Considered Collectible
1441	Jan. 31. 190 . Bal. Arrears Dec. and prev	7517 19		2,354 42	2,354 42	5162 77	
1442	Feb. 28. 190 . Arrears for Jan'y.	1889 06	93 13	1177 94	1271 07	616 99	
1443	March 31. 190 . Arrears for Feb'y.	1051 78	47 06	702 04	749 10	302 68	
1444	April 30. 190 . Arrears for March	863 00	53 30	410 82	464 12	398 88	
1445	May 31. 190 . Arrears for April	569 11	447 75		447 75	121 36	
1446	June 30. 190 . Arrears for May	1052 02					
1447	July 31. 190 . Arrears for June						
1448	Aug. 31. 190 . Arrears for July						
1449	Sept. 30. 190 . Arrears for Aug.						
1450	Oct. 31. 190 . Arrears for Sept.						
1451	Nov. 30. 190 . Arrears for Oct.						
1452	Dec. 31. 190 . Arrears for Nov.						
1453	Totals.	12941 16	641 24	4464 522	5286 46	71634 70	

L.R. D., P. 6.

EXECUTIVE DEPARTMENT. GENERAL EXPENSES.

	PLANT	TOTALS		Per M. Sold
		This Year	Last Year	
1500 Executive Salaries	3 044 31	8 044 31		0182
1501 General Clerical Salaries	515 59	515 59		0031
1502 General Office Expense	396 02	396 02		0023
1503 Incidental Expense	2 207 44	2 207 44		0132
1504 Rent of Executive Offices	590 50	590 50		0035
1505 Legal Expenses	1151 67	1151 67		0069
1506 Total Above items	7905 53	7905 53		0472
1507 Promoting New Business	12920 42	12920 42		0772
1508 Taxes	9097 92	9097 92		0543
1509 Total General Expenses	29923 87	29923 87		1787

ANALYSIS OF SPECIAL EXPENSE ACCOUNTS NOS. 1819, 1820, 1821, 1822. NEW BUSINESS.

	Domestic Fuel		Illuminating		Industrial Fuel		Power		Totals	
	Total	Per Consumer	Total	Per Consumer	Total	Per Consumer	Total	Per Consumer	Amounts	Per Consumer
1520 a. Advertis'g, Newspaper, etc.									14442 28	
1521 b. Circulars and Distr'n									1371	
1522 c. Bonuses and Commissions									700	
1523 d. Exhibition Expenses									513 81	
1524 e. Salaries, Wages and miscell. expenses									3916 49	
1525 Totals									8893 29	
1526 Cost of Appliances sold									20310 25	
1527 Appliance Expense									4178 86	
1528 Total cost Appliances									34489 11	
1529 Received for Appliances									25595 44	
1530 f. Loss on Appliances										
1531 f. Profit on Appliances									1106 33	
1532 Piping { Material									9333 28	
1533 and Labor									3123 23	
1534 Con- Mischs. Exp.									994 51	
1535 nec- Totals									7451 02	
1536 Charged Consumers									2317 56	
1537 g. Net Cost									5133 46	
Total cost items a to g									1292 42	

APPLIANCES INTRODUCED AND CONNECTED.

	DOMESTIC FUEL				ILLUMINATING			
	Class	No.	No. Cons.	Per Unit Items	Class	No.	No. Cons.	Per Unit Items
1550 Ranges (new)		601		Feet Pipe per App'l	Houses piped by Co.			Avg rooms per house
1551 " (old)		1029		Cost Pipe & Fit'gs per Ap.	Houses piped by contract			Cost Pipe & Fit'gs per house
1552 Hot Plates		281		Cost Labor connect'g Ap.	Gas Area			Cost Labor per house
1553 Water Heaters		125		Total Cost connect'g Ap.	Misel.			Cost Pipe & Labor per house
1554 Heaters & Grates		53		Total Cost connecting per foot pipe				Cost Pipe and Labor per foot Pipe
1555		43						
1556		2132						
1557								
INDUSTRIAL FUEL					POWER			
1560				Feet Pipe per App'l	Below 5 H. P.			Feet Pipe per Engine
1561				Cost Pipe & Fit'gs per Ap.	5 to 9 H. P.			Cost Pipe & Fit'gs per Engine
1562				Total Cost connecting Ap.	10 to 14 H. P.			Cost Labor on connecting per Engine
1563				Cost Labor connecting Ap.	15 to 24 H. P.			Total Connection per Eng.
1564				Total Cost connecting per foot pipe	25 to 39 H. P.			Total Connection per foot pipe
1565					50 H. P. & Upwards			
1566								
1567								

1570

1571

1572

1573

1574

E. D. J. 29/1 xx

REPORT FOR

DETAILS OF GAS SALES

	Rate	THIS YEAR		LAST YEAR		Inc. or Dec. Cu. ft.	% Inc. or Dec.
		Cu. ft.	Amount	Cu. ft.	Amount		
1600	Illuminating Gas						
1601							
1602							
1603							
1604	Gross Sales Less Rebates and Allowances Net Sales	1168	009 200	201	897 79		
1605			563 600	1	204 110		
1606		120	167 445 600	200	69 239		
1607							
1608	Domestic Fuel Gas						
1609							
1610							
1611							
1612	Gross Sales Less Rebates and Allowances Net Sales						
1613							
1614							
1615							
1616	Industrial Fuel Gas						
1617							
1618							
1619							
1620	Gross Sales Less Rebates and Allowances Net Sales						
1621							
1622							
1623							
1624	Gas for Power						
1625							
1626							
1627							
1628	Gross Sales Less Rebates and Allowances Net Sales						
1629							
1630							
1631							
1632	Total Sales	167	445 600	200	69 239		

STREET LAMPS

	No. of Lamps	GROSS EARNINGS			Amt. per Lamp	Hours Burning	Gas per Hr.	Total Gas Cons.
		Open Flame Burners	@	per year				
1633		do	@	"				
1634		do	@	"				
1635		do	@	"				
1636		Incandescent Burners	@	"				
1637		do	@	"				
1638		do	@	"				
1639								
1640	Totals							

EXPENSES

1641	Lighting and Extinguishing	Total Expense	per M. ft. Gas
1642	Repairing		
1643	Cleaning		
1644	Thawing		
1645	Rental		
1646	Inspecting and Testing		
1647			
1648			
1649			
1650			
1651			
1652			
1653			
1654	Net Earnings		

REPORT FOR

LOW PRESSURE STREET MAINS (FEET).

Size Inches	In Use First of Year	Laid This Month	Prev. Report This Year	Total This Year	Total To Date	Abandoned During Mo.	Taken Up During Year	Total Previous Deductions	Total Deductions to Date	In Use Close This Mo.
1700	2	195 114	18 087	213 201	213 201		1388			211 813
1701	3									83 578
1702	4	81984	1534	83518	83518					13799
1703	6	12194	1605	13799	13799					4822
1704	8	4822		4822	4822					9100
1705	10	9100		9100	9100					3950
1706	12	3950		3950	3950					1300
1707	16	1300		1300	1300					1400
1708	20	1400		1400	1400					
1709	24									
1710	30									
1711	36									
1712	FEET Totals	329864	21226	351090	351090		1388			329702
1713	Miles	58 688	4017	6270	6270		226			62 44

BOOSTER MAINS.

Size Inches	In Use First of Year	Laid This Month	Prev. Report This Year	Total This Year	Total To Date	Abandoned During Mo.	Taken Up During Mo.	Total Previous Deductions	Total Deductions to Date	In Use Close This Mo.
1714										
1715										
1716										
1717										
1718										
1719	Totals									

PUMPING MAINS.

Size Inches	In Use First of Year	Laid This Month	Prev. Report This Year	Total This Year	Total To Date	Abandoned During Mo.	Taken Up During Mo.	Total Previous Deductions	Total Deductions to Date	In Use Close This Mo.
1720										
1721										
1722										
1723										
1724										
1725	Totals									

COST OF STREET MAINS. (ALL KINDS.)

COST MAINS LAID THIS MONTH.					COST MAINS LAID THIS YEAR.				
AMOUNT					AMOUNT				
Size	Labor	Material	Total	Per Foot	Labor	Material	Total	Per Foot	
1726	2				1888 07	1997 02	3885 89	1044 105	2149
1727	3								
1728	4				229 18	380 61	609 79	1443 2481	3976
1729	6				311 16	753 84	1065 00	1938 4677	6635
1730	8								
1731	10								
1732	12								
1733	16								
1734	20								
1735	24								
1736	30								
1737	36								
1738	Totals				24208 41	31322 27	5560 68		

This Month			This Year			Recapitulation.		
Cost Low Pressure Mains laid	\$		\$	5.560.68		Miles Low Pressure Main		
" " Booster	\$		\$			" " Booster Main		
" " Pumping	\$		\$			" " Pumping Main		
Total cost Mains laid	\$		\$	5.560.68		Total Main Mileage		62.44
Deduct value of Mains taken up	\$		\$	79.68				
Net cost of Mains	\$		\$	5481.00				

Ex. 2. 5481.00
791

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REPORT FOR

SERVICE PIPES LAID

	No. Laid This Month Year	No. Previously Rep'd this Yr.	Total This Year	No. in Use First of Yr.	Total No.	No. Disc. This Year	No. in Use This Date
1745	Main to Meter (Old Main)	328		4319	4642		4642
1746	" " (New Main)	152		517	669		669
1747	Curb to Meter (Extension)	44		221	265		265
1748	Total complete services,	519		5057	5576		5576
1749	Main to Curb (acc't paving)	35		116	151		151
1750	Total No. services,	554		5173	5727		5727

COST OF SERVICES

	Gross Cost	Charged Consumers	Net Cost	GROSS COST		NET COST	
				Per Service	Per Foot	Per Service	Per Foot
1751	Labor,	3623 92					
1752	Material,	3370 46					
1753	Total this month	6994 38	2527 35	4467 03	1261	1779	806
1754	Previously Reported,	6994 38	2527 35	4467 03	1261	1779	806
1755	Total this year,	13988 76	5054 70	8964 06	2522	3558	113
1756	Cost last year	3817 24	1445 74	2371 50	1260	184	782
1757	Pipe used for complete services,						
1758	" " " service extensions,						
1759	" " " total complete services,						
1760	" " " services to curb,						
1761	Total,						

APPLIANCES

	DOMESTIC FUEL APPLIANCES						IND. APPLIANCES			GAS ENGINES		
	Ranges	Hot Pl	W. E.	Heaters and Grates	Miscs.	Total	No.	No.	H. P.			
1762	First of Month ^{Year}	4682	294	711	102	131.	5920					
1763	New during Month ^{Year}	1640	281	125	49	68	2163					
1764	Total,	6322	575	836	151	199	8083					
1765	Off during Month, ^{Year}	474	10	3	1	2	490					
1766	Close of Month, ^{Year}	5848	565	833	150	197	7593					
1767	First of Year,	4682	294	711	102	131.	5920					
1768	Gain or Loss,	1166	271	122	48	66	1673					

STREET LAMPS

	No. Installed This Month	No. Previously Rep'd this Yr.	Total This Year	No. in Use First of Yr.	Total No.	No. Disc. This Year	No. in Use This Date
1769	Lamp Services,						
1770	Boulevard Posts,						
1771	Common Posts,						
1772							
1773	Total						

REPORT FOR

SPECIAL EXPENSE ACCOUNTS

No.	ACCOUNT	Total Expense	CHARGED TO			Balance Special Accounts Close Month	
			No.	Account	Amount	Debit	Credit
1800	Coal Stock Expense,	2 399 55	500	Coal Stock,	2 399 55		
1801	Coke Stock Expense,	3 196 02	502	Coke Stock,	3 196 02		
1802	Tar Stock Expense,	1 197 52	503	Tar Stock,	1 197 52		
1803	Ammonia Stock Expense,		504	Ammonia Stock,			
1804	Pur. Dep't and St. Room,	2 560 31					
1805	Barn Expense,	3 111 18					
1806	Preliminary Expense,						
1807	Lamps Discontinued,		1818b	St. Lamp Mntc.,			
1808	Mains Abandoned,		1300	St. Main Mntc.,			
1809	Steam,						
1810	Rent,	75 81 87	1304b	Meter Dep't Exp.,			
		3 146 45	1403	Coll. O. Rent,			
			1504	Exc. O. Rent,			
			1805	Barn Exp.,			
181	Contingent Bench Repairs,	1 528 45	1011	Bench Repairs,	1 528 45		
1812	Gen. W'ks Bldgs. Repairs,	539 30	1017	Bldgs. Rep. C. G.	206 17		
			1113	" " W. G.	333 13		
			1213	" " P. G.			
1813	General Apparatus Repairs,	1402 99	1018	App. Rep. C. G.	494 30		
			1114	" " W. G.	908 69		
			1214	" " P. G.			
1814	Sundry Labor,	1 920 90	1019	Sund. Lab. C. G.	650 72		
			1115	" " W. G.	1210 21		
			1215	" " P. G.			
1815	Works Expense and Supplies,	2 369 04	1020	Wh. R. & Sup. C. G.	813 17		
			1116	" " W. G.	1 555 87		
			1216	" " P. G.			
1816	General Supervision,	2 827 93	1021	Gen. Sup., C. G.	961 56		
			1117	" " W. G.	1 866 37		
			1217	" " P. G.			
1817	Dist. Holder Station,		1022	Dis. H. Sta. C. G.			
			1118	" " W. G.			
			1218	" " P. G.			
1819	Domestic Fuel App'cs,		1507	Prom. N. Bus.,	13 266 64		
			308	Const.,			
1820	Ill'g Pipes and Fixtures,	363 51	1507	Prom. N. Bus.,	363 51		
			309	Const.,			
1821	Industrial Gas App'cs,	17 29	1507	Prom. N. Bus.,	17 29		
			310	Const.,			
1822	Gas Engines and Piping,		1507	Prom. N. Bus.,			
			311	Const.,			
1823	Taxes Accrued,	13 646 94	1508	Taxes, ^{Dist.} Dist.	909 79		
				^{Dist.} Dist.	4 549 02		
1824	Interest Accrued,	60 219 10	209	Interest,	60 219 10		
1825	Bad Debts,	3307 85	909	Bad Debts,	2 100 00		

Totals,

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REPORT FOR

STEAM ACCOUNT No. 1809.

DEBITS.		CREDITS.	
(a) Fuel		Charged to	
1900 Tons <i>Good. Right</i>	3900 00	1014 Coal Gas Steam,	1500 00
1901 Tons, <i>Good. Right</i>	1789 94	1100 Water Gas Generator,	4531 87
1902 Tons,		1110 do Pur. and St.	545 00
1903 Total Fuel,		1201 Pumping Purchased Gas,	
(b) Water		1210 Purification & St. do	
1904 Gals. City Water,	@	1800a Coal Stock Expense,	
1905 Gals. Pumped by Co. cost		1803a Ammonia Stock do	
1906 Total Water,	1891 93	1815 Works Expense,	600 00
(c) Labor		1817 District Holder Station,	
1907 Firemen,	@		75 00
1908 Helpers,	@		120 00
1909	@		210 00
Total Labor,			
(d) Repairs,			
1910 Labor,			
1911 Material,			
1912 Total Repairs,			
1913 Total Cost,	a-b-c-d		
1914 Less Steam Sold,			
1915 Net Cost Steam,	7581 87	Total Credits,	7581 87
1916 Basis of Steam Charges			
1917			
1918			
1919			
1920			

BARN EXPENSE ACCOUNT No. 1805.

(101 Horses)

	Total	Per Horse	Charged to	
1925 a Wages,	803 12	8031.	12050	175 20
1926 Rent,	92 00	920	13054	165 22
1927 Hay,	495 80	4958	1306	180 21
1928 Oats,	609 70	6097	3200	260 43
1929 Oil Meal and Bran,			3204	140 22
1930 Bedding,	20 13	201	3265	120 25
1931 Fuel, Light and Water,	90 00	900	3271	1378
1932 Med. Attendance and Medicines,	2 00	20	3272	115 20
1933 Barn Repairs,	33 04	330	3008	1205
1934 Horse Shoeing,	174 10	1741	301	10558
1935 Insurance on Horses,	17 32	173	2002	170 22
1936 Board for horses,	209 65	2096	351	266 21
1936a Total, (a)	2546 86	25468	18010	244 93
1937 b Harness Repairs,	135 64	1356	1802	34 02
1938 Wagon Repairs,	123 15	1231	1819	528 69
1939 Insurance on Wagons & Harness,			1821	426 65
1940 <i>Insurance on Wagons & Harness,</i>	253 03	2530	1820	115 20
1941 <i>Insurance on Wagons & Harness,</i>	52 50	525	1301	27 50
1942 Total, (b)	504 32	50432		
1943 Total Barn Expense,	3111 18	31110		3111 18

RENT ACCOUNTS.

		Charged to	
1950 Rental paid for Office,	1500 00	1403 Rent of Coll. Office,	363 79
1951 <i>do</i> for Meter Shop,	450 00	1504 Rent of General Office,	260 00
1952 <i>do</i> for Meter Shop,	450 00	1304 Meter Dep. Expense,	102 00
1953 <i>do</i> for Barn,	283 00	1804 Barn Expense,	455 66
1954 <i>do</i> for Barn,		1805	450 00
1955 Rental Credited Rents Receivable,	1609	1814	360 00
1956 For <i>Water</i>	5375	215	360 00
1957 For <i>Service</i>	19361	3227	360 00
1958 <i>Water</i>		3238	360 00
1959 <i>Water</i>			
1960 Total,	314645		314645

REPORT FOR

PAY ROLL DATA

	Account No.	Total Wages	Total Hours	Avg. Hrs. per day charged this acc't	Working hours per day	Average No. of men	Avg. wages per hour	Avg. wages per day
MANUFACTURING—Coal Gas								
2000	1010	5634 84						
2001	1011	93 88						
2002	1012	106 38						
2003	1015a	606 53						
2004	1017	446 06						
2005	1018	419 81						
2006	1019	581 55						
2007	1021	908 87						
2008		337						
2009								
2010								
2011		8851 29						
MANUFACTURING—Water Gas								
2012	1106	3421 08						
2013	1107	431 59						
2014	1108	36 59						
2015	1111	440 15						
2016	1113	84 89						
2017	1114	693						
2018	1115	506 54						
2019	1117							
2020								
2021								
2022								
2023		4927 77						
PURCHASED GAS								
2024	1201							
2025	1211							
2026	1213							
2027	1214							
2028	1215							
2029	1217							
2030								
2031								
2032								
DISTRIBUTION								
2033	1300	339 54						
2034	1301	217 10						
2035	1302	353 92						
2036	1303	1051 52						
2037	1304	176 56						
2038	1305	1943 35						
2039	1306	1558 89						
2040	1303	170 68						
2041	1346	34 06						
2042		5845 62						
COLLECTION								
2043	1400	950 97						
2044	1401	4156 53						
2045	1402	274 91						
2046	1404	147 86						
2047	1405	667 81						
2048		42 15						
2049								
2050								
2051		6240 23						

Total *Dec. 2* 6240 23
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REPORT FOR

PAY ROLL DATA

	Account No.	Total Wages	Total Hours	Ave. Hrs. charged per day this acct	Working hours per day	Average No. of men	Ave. wages per hour	Ave. wages per day
GENERAL EXPENSE								
2052	Executive Sal. rics	1500	1677 01					
2053	Clerical Salaries	1501	515 59					
2054	Legal Expenses	1505						
2055								
2056	Total	2419 260						
SPECIAL EXPENSE ACCOUNTS								
2057	Coal Stock Expense	1800	2 503 08					
2058	Coke " "	1801	2 502 11					
2059	Tar " "	1802	361 49					
2060	Ammonia Stock Expense	1803						
2061	Purchasing Dept and Storeroom	1804	503 05					
2062	Barn Expense	1805	740 44					
2063	Preliminary Expense on New Work	1806						
2064	Lamps Discontinued	1807						
2065	Mains Abandoned or Taken up	1808						
2066	Steam	1809						
2067	Rent	1810	483 49					
2068	Contingent Bench Repairs	1811	521 17					
2069	General Works Bldgs. Repairs	1812	148 19					
2070	General Apparatus Repairs	1813	392 44					
2071	Sundry Labor	1814	1 725 31					
2072	Works Expense and Supplies	1815	2 763 76					
2073	General Supervision	1816						
2074	District Holder Station	1817						
2075	Street Lamp Maintenance	1818	9 024 55					
2076	Domestic Fuel Appliances and Connections	1819	359 46					
2077	Illuminating Pipes and Fixtures	1820	14 32					
2078	Industrial Gas Appliances and Con.	1821						
2079	Gas Engines and Connections	1822						
2080								
2081			372 30					
2082			395 67					
2083			115 40					
2083	Total	23128 03						
STOCK								
2084	Purifying Material Stock	505						
2085	Main Stock	506	50 86					
2086	Steel Pipe Stock	507	88 84					
2087	Fittings Stock	508	19 45					
2088	Service Stock	509						
2089	Lamp Stock	510						
2090	Gas Engine Stock	511						
2091	Appliance Stock	512						
2092	Miscellaneous Stock	513						
2093		501	226					
2094								
2095								
2096								
2097								
2098								
2099								
2100								
2101								
2102								
2103								
2104								
2105	Total							

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REPORT FOR

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PAY ROLL DATA

	Account No.	Total Wages	Total Hours	Avg. Hrs. charged this acc't	Working hours per day	Average No. men	Avg. wages per hour	Avg. wages per day
CONSTRUCTION								
2136	Gas Works							
2107	Street Main Extensions	265 60						
2108	New Service Pipes	2548 01						
2109	Meters and Connections	3813 70						
2110	Street Lamps	2 65						
2111	Tar Plant							
2112								
2113								
2114								
2115								
2116								
2117								
2118								
2119								
2120								
	Total	6723 34						
SUMMARY								
2121	Manufacturing Coal Gas	8851 29						
2122	Water Gas	4927 77						
2123	Purchased Gas							
2124	Distribution	5845 62						
2125	Collection	6240 23						
2126	General	2192 60						
2127	Special Expense Accounts	23128 03						
2128	Stock	160 41						
2129	Construction	6723 34						
2130	Total	58069 29						

REPAIR AND MAINTENANCE ACCOUNT

		THIS YEAR			LAST YEAR		
		Labor	Material	TOTAL	Per M. Mid.	TOTAL	Per M. Mid.
2200	Coal Shed and Apparatus, (1800c)						
2201	Coke Yard " (1801d)	10 09		10 09			
2202	Tar Dep't " (1802b)	147 31	5179	199 10			
2203	Ammonia " (1803b)						
2204	Drawing and Charging Machinery, (1010b)						
2205	Retort House Conveyors, (1010c)						
2206	Bench Renewals, (1011b)						
2207	Miscellaneous Bench Repairs, (1011a)	94 56	2889 39	2889 39			
2208	Water Gas Generating Apparatus, (1107)	439 23	132 94	227 50			
2209	Boiler Repairs, (1809d)		623 86	1063 09			
2210	General Works Repairs, Buildings, (1017)	239 36	571 38	810 74			
2211	" " Apparatus, (1013)	763 24	943 86	1707 10			
2212							
2213							
2214	Total Mfg. Dept.,	1693 79	5213 22	6907 01			
2215	Maint., (1300)	384 01	229 45	613 46			
2216	Services, (1301)	207 72	120 94	328 66			
2217	Meters, (1303)	1058 74	165 47	1224 21			
2218	Lamps, (1818)						
2219	Total Dist'n and Lamp Dept.,	1650 47	515 86	2166 33			
2220	Total All Dep'ts.,	3344 26	5729 08	9073 34			

REPORT FOR

GAS USED BY COMPANY

WHERE USED	Cu. Ft.	Charged to Acct No.	Rate	Amount	REMARKS
2221 Gas Works	31200			1279	
2222 Gas Works	28800			1228	
2223 Meter Shop	75800			3187	
2224 Office	144800			6153	
2225 Office	157900			6661	
2226 Sewer Hall	8300			359	
2227 Store room	28300			1185	
2228 Gas & Elec Shop	60000			2730	
2229					
2230					
2231					
2232					
2233					
2234					
2235 Totals,	535100			22782	

COKE USED BY COMPANY

WHERE USED	Weight	Charged to Acct No.	Rate	Amount	REMARKS
2236 Ranch Fuel	499.97	1002		2761.60	
2237 Water Gas Generator	2721.23	1101		14961.20	
2238 Boiler Fuel (Bunker)	268.24	3000		469.34	
2239 Bunker Fuel	87.	1002		145.45	
2240					
2241					
2242					
2243					
2244					
2245					
2246					
2247					
2248					
2249					
2250					
2251					
2252					
2253					
3576.44					
18337.69					

CLERICAL SALARIES DATA

WHERE EMPLOYED	No. Clerks	Total Salaries	CHARGED TO	Amount
2254 Gas Works		251.64	1816 Works Supervision	251.64
2255 Street Department		84.00	1302f Street Dep't Expense	84.00
2256 Meter Department			1304a Meter " "	
2257 Collection Office	4	267.08	1401 Collection Clerical Sal.	4267.08
2258 General Office		515.59	1501 General Office "	515.59
2259 Purchasing Department		754.12	1804a Purchasing Dep't	754.12
2260 Appliance Department,		600.00	1804b Storeroom Expense	
2261 New Bus. Department		630.00	1801b Coke Expense	
2262			1802a Tar Expense	
2263			1507 Prom. New Business	1230.00
2264			Appliance Dep't	
2265				
2266				
2267				
2268 Total	7	1102.43	Total	7102.43

REPORT FOR

COAL STOCK

	Tons	Cost	Per Ton
2300 Stock first of month			
2301 Received during month	1094.61	7021.31	6418
2302 Coal Stock Expense as below	9148.79	50019.85	5470
2303 Total Cost		2399.55	262
2304 Used during month	10238.40	59440.11	5810
2305 Stock close of month	8170.33	46661.15	5711
	20688.07	12778.96	6175

\$2399.55

2307 Coal Stock Expense	(1800a)
2308 do	(1800b)
2309 do	(1800c)
2310	
2311	
2312 Total Expense	(to line 2202)

\$

COKE STOCK

	Total Tons	Total Cost	Av. Per Ton
2320 Stock first of month	786.31	8918.08	1134
2321 Received or made during month	4666.47	20755.59	4447
2322 Coke Expense as below		3244.17	695
2323 Total Cost	5452.78	32917.84	6045
2324 Used during month	23576.09	18926.21	5291
2325 Sold during month	1472.91	9177.55	6235
2326 Total Sold and Used	5049.00	28103.76	5566
2327 Stock close of month	403.78	4814.08	1193

\$

2328 Coke Stock Expense	(1801a)
2329 do	(1801b)
2330 do	(1801c)
2331 do	(1801d)
2332 do	
2333 Total Expense	(to line 2222)

\$3244.17

TAR STOCK

	Gallons	Cost	Per Gal.
2340 Stock first of month	7502.4	2688.97	0358
2341 Made and bought during month	73675	1289.83	0174
2342 Tar Expense as below		1197.52	0162
2343 Total Cost	148699	5176.32	0348
2344 Sold during month	86236	2954.96	0342
2345 Stock close of month	62463	2221.36	0355

\$

2347 Tar Stock Expense	(1802a)
2348 do	(1802b)
2349 do	(1802c)
2350	
2351	
2352 Total Expense	(to line 2242)

\$

AMMONIA STOCK

	Pounds	Cost	Per Lb.
2360 Stock first of month			
2361 Made during month			
2362 Ammonia Expense as below			
2363 Total Cost			
2364 Sold during month			
2365 Stock close of month			

\$

2367 Ammonia Expense	(1803a)
2368 do	(1803b)
2369 do	(1803c)
2370 Total Expense	(to line 2262)

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Volume Three.

Defendants' Testimony.

United States Circuit Court, District of Nebraska, Lincoln Division.

No. 10, Docket A.

THE LINCOLN GAS AND ELECTRIC LIGHT COMPANY, Complainant,

v.

THE CITY OF LINCOLN, FRANCIS W. BROWN, Mayor, and EDMUND C. STRODE, City Attorney of said City of Lincoln, Defendants.

I, George H. Thummel, clerk of said court, hereby certify that the following record, consisting of 456 pages, contains all of the testimony in the above entitled case, adduced by the defendants therein; also all of the exhibits in connection therewith,—as shown by the files and records of this office.

In testimony whereof, I have hereunto set my hand and the seal of said court, at Lincoln, in said district, this 25th day of June, 1909,

[Seal United States Circuit Court, District of Nebraska,
Lincoln Division.

GEO. H. THUMMEL, *Clerk.*
By J. H. McCLAY, *Deputy.*

In the United States Circuit Court for the District of Nebraska, Lincoln Division.

LINCOLN GAS & ELECTRIC LIGHT COMPANY, Complainant,

vs.

THE CITY OF LINCOLN, NEBRASKA, et al., Respondents.

Testimony of Sundry Witnesses in the said Action Taken on Behalf of the Defendant.

This testimony taken by me as United States Examiner in and for the District of Nebraska, sealed up, endorsed, addressed, and transmitted by me.

(Signed)

MYRON E. WHEELER,
Examiner.

Hon. John H. McClay, Clerk of the U. S. Circuit Court for the District of Nebraska, Lincoln, Nebraska.

Filed Jul- 6, 1908. Geo. H. Thummel, Clerk. By J. H. McClay, Deputy.

This deposition was received and opened in open Court in pursuance of the order of Court this 6th day of July, 1908.

GEO. H. THUMMEL, *Clerk,*
By J. H. McCLAY, *Deputy.*

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REPORT FOR

COAL USED BY COMPANY

	TONS	COST	WHERE USED	Account No.	TONS	COST
2375 Used during month (2304)	8170.33	44661.15	Coal Consumed Purchased from Boiler Fuel Sold	1000	7251069	42241.09
2376				1002	629'81	2794.00
2377				5000	26560	1495.86
2378					2325	13020
2379						
2380						
2381						
2382						
2383						
2384						
2385						
2386						
2387						
Total				Total	817033	44661.15

TAR SOLD AND USED

	GALLONS	COST	WHERE USED	Account No.	GALLONS	COST
2390 Sold and used (2344)	86236	283491	Sold		18942	145910
2391			Used in Pitch Plant.			
2392			Used for Gas Making	3000	67294	13758
2393			Boiler Fuel			
2394						
2395						
2396						
2397						
2398						
2399						
Total				Total	86236	283491

d In the Circuit Court of the United States for the District of Nebraska, Lincoln Division.

THE LINCOLN GAS & ELECTRIC LIGHT COMPANY, Complainant,
 vs.
 THE CITY OF LINCOLN, NEBRASKA, FRANCIS W. BROWN, Mayor,
 et al., Defendants.

Examiner's Report.

To the Honorable the Judges of the United States Circuit Court for the District of Nebraska, Lincoln Division:

I, Myron E. Wheeler, an Examiner in Chancery for said Court, duly appointed, do hereby certify and report that, in pursuance to the annexed notice and stipulation, duly signed by counsel for the respective parties, I proceeded to take the testimony of the witnesses named in said Notice and stipulation, on behalf of the defendants at the office of the Lincoln Gas and Electric Light Company, in the City of Lincoln, County of Lancaster, and State of Nebraska, on the 7th day of May, 1908, at the hour of 10 o'clock A. M. and adjourned from day to day as shown in the accompanying report of said testimony, and that the testimony so taken embraced — pages, and exhibits marked —, is herewith transmitted.

All of which is respectfully transmitted.

(Signed)

MYRON E. WHEELER,
Examiner in Chancery.

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Index of Exhibits.

	Pages.	Found.
Exhibit "100" Statement of Mains & Services...	3	380
" "101" Monthly Gas report for 1907...	5	Not attached.
" "102" and "103" City ordinance.....	43	382-385
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" "109," "110" and "111" Coal contracts	132	387-389
" 112, 113, and 114, Oil contracts.....	132	390-392
" 115 Municipal Journal	138	Not attached.
" 116 Contract for Kansas Coal.....	138	392½
" 117 Cost of coal gas.....	141	393
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" 120 Gas made and sold.....	141	396
" 121 Comparative rates	141	397
" 122 Gas sales, expenses and earnings..	141	398
" Expenses and earnings, 1905.....		
" 130 Pages of Journal.....	162	455
" 144 Record of gas pressure in inches..	291	Not attached.
" 150	349	

The following Exhibits, 101, 115, 123, 124, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, cannot be obtained, being large books, also Exhibit 144, it being a city record.

Exhibits 123, 124, 125, 126, 127, 128 offered		
on	379	399, etc.
Exhibit 129 Construction account.....	151	403

3 Filed Jul- 6, 1909. Geo. H. Thummel, Clerk, by J. H. McClay, Deputy.

HOMER HONEYWELL, re-called for further Cross Examination.

Examined by Mr. STEWART on behalf of the city:

Q. Mr. Honeywell, on your previous cross examination I asked you to give me a statement of the mains and services laid as far back as you could get the data accurately; have you obtained that?

A. Yes sir. (Exhibit 100.)

Q. Will you look at exhibit 100 and state if that is a correct statement of the mains and services laid from 1902 to 1907 inclusive?

A. Yes, sir; as far as I have been able to determine.

Q. And that was taken from the books and records of the Gas Company, was it?

A. Yes, sir.

Mr. STEWART: The City offers in evidence exhibit 100 as a part of the cross examination of this witness.

Mr. ROSE: The plaintiff objects and asks leave to cross examine the witness upon the competency of the exhibit.

Cross-examination by Mr. ROSE as to competency:

Q. How accurate a search and research did you make?

A. I took that off of the yearly report.

Q. And how far back did you search?

A. As far as 1902, 1903, 1904, 1905, 1906 and 1907.

Q. You have not gone back any farther than that?

A. No, sir.

Q. Do you know whether or not it is accurate?

A. O, to the best of my knowledge and belief, yes. I did not spend very much time getting it up; I took the yearly report; I did not compare it or anything.

Q. Are you satisfied that that is a full and true exhibit of that work done by the Company?

4 A. Yes, with the exception of 1902. I have not got the number of feet for the service, otherwise I think it is all right.

Mr. ROSE: The plaintiff makes no objection to exhibit 100.

Examination resumed by Mr. STEWART, on the part of the city:

Q. We have in evidence some of those reports, have not we?

A. Yes, sir.

Q. We have not got the report in full for 1907 that was introduced?

A. I think for the first six months.

Q. Have you got it so that you can produce it?

A. Do you mean for the entire year 1907?

Q. Yes?

A. Yes.

Q. I will ask you to produce it?

Mr. ROSE: The plaintiff objects for the reason that it is at a date too remote and too long subsequent to the taking effect of the ordinance in question to have any weight or bearing, and because it is immaterial and not relevant to the issues.

A. (Not answered.)

Q. I will ask you to just bring the written report here and we will offer that in evidence, and then substitute a copy later on. You might possibly bring it up right away and have it identified and offered so that we can refer to it.

A. All right, I will go right down and get it.

(The book is produced before the Examiner.)

Q. What is this book you have in your hands?

A. Our monthly gas report.

Q. That is for the year 1907?

5 A. Yes, sir.

Q. And does that contain a summary of the business for the entire 12 months?

A. Yes, sir.

Q. On what pages is that found?

A. Well, it is headed here on the fly leaf "Yearly." Those are just the same as the pages on these other reports; the pages are all the same. It begins on page 9 under the heading "Yearly" and includes pages 9 to 27 inclusive.

Mr. STEWART: The City offers in evidence pages 9 to 27, inclusive under the heading "Yearly," and the same is marked Exhibit 101.

Mr. ROSE: The plaintiff objects as having no bearing upon the issues and being at a period too remote to the time when the ordinance went into effect, and having no bearing upon the reasonableness of the rate established by the ordinance at the time the same went into effect.

Mr. STEWART: I will offer the whole book so that we can refer to it if we want to.

Mr. ROSE: The plaintiff objects as incompetent, immaterial, irrelevant and as having no bearing upon the issues of the case and being too remote to the time when the ordinance went into effect, and having no bearing upon the reasonableness of the rate established by the ordinance at the time the same went into effect.

Q. Mr. Honeywell, referring to exhibit 101 on page 10 I notice the item of bench repairs is \$4,022.24, this year, while previous year it was \$1,976; can you explain what was the occasion of that marked increase?

A. Why, we were rebuilding some arches in the latter part of 1906 and started to using those benches in the fore-part of 1907.

Q. That is, I think you testified in your former examination that you rebuilt from the foundation three benches, you call them?

A. Yes, sir.

Q. That was correct, was it?

A. Yes, that is right.

Q. Three benches of sixes; when were they built?

A. They were built in the fall of 1906, and we started to use them in 1907, either the latter part of December 1906 or the first of January, 1907, if I remember correctly.

Q. Do you remember about what the total cost of them was?

A. I think about \$6,600.

Q. What was included in the construction of those benches when you say "everything above the foundation?"

A. O, the iron works and the retorts themselves, hydraulic mains, another piece of hydraulic mains, and everything that would go with the bench.

Q. And you think they cost about \$6,600, the whole of it?

A. I think that is right; that is my impression.

Q. To refresh your recollection was not there some \$13,000 or \$14,000 in the contingent bench repairs?

A. Was not there that much in there?

Q. Yes?

A. I don't remember now. There might have been that much in the contingent bench repairs.

Q. Now, in charging the cost of the rebuilding of those benches, did you charge it all up to one year?

A. No, sir; I aimed to spread it over a period for which it is estimated that the benches would last.

Q. What did you figure that to be?

A. We thought on the new benches four years, if I remember correctly; we thought they ought to last longer than the ordinary bench.

7 Q. And it is your understanding that it was put over about four years?

A. I think it was aimed to spread that period over about 4 years.

Q. Do you know whether it was so entered up on the books or not?

A. I cannot tell that without looking up the books; I don't remember.

Q. What is the life of the iron work construction in those benches, about, what would you say?

A. O, I would think every time you rebuild a bench you have got to have some new iron work, not all of it, but some of it.

Q. Generally speaking, I mean?

A. I don't remember that proportion, Mr. Stewart.

Q. You could not say how long it would last?

A. I could not say how long it would last, the whole thing, but every time we rebuild we would have to buy some.

Q. You would have to buy some repairs?

A. Yes, sir.

Q. But I am speaking about the general life of the iron work in the construction of a bench?

A. I would hate to guess, but I think the last ones—the first iron work was put in there in 1890 and then the entire new work in 1906.

Q. Have you got anything to show what that iron cost in this new construction, or do you remember?

A. In the new?

Q. Yes?

A. I don't remember whether that was a flat contract for the whole thing, or whether the iron work was separate; the party that built the benches bought the iron for it.

Q. How about the retorts, what do you count the life of a retort?

A. About three years.

Q. And how about the arches?

8 A. Well, you probably could put two fillings in, that would make 7 years, perhaps, six or seven years, or something like that.

Q. The life of the arch?

A. Yes, the life of the arch.

Q. And then when you rebuild it you would use some material that was there and place it back in the arch?

A. Yes, sir.

Q. In what book of the Gas company was this entry of repairs, in what book can it be found?

A. In the Account Payable, or General ledger.

Q. Was the entire account of reconstruction of these three benches charged to operating expenses?

A. It had not been, no, sir.

Q. What do you mean by that?

A. I mean we put it into a special account and aimed to charge up so much for the manufacture of bench renewals, what we call bench renewals.

Q. That would be charged to operating expenses?

A. It will be over a period that we estimated these benches would last.

Q. There is nothing charged to construction?

A. No, sir; I think not.

Q. It is all taken from operating expenses?

A. Yes, sir.

Q. And that has been the policy of your Company, has it?

A. Yes, sir, except when we built absolutely new benches then it would be a Construction account. If we did not have any benches there before and started a set of benches in that would be Construction account.

Q. You would call that an addition to your property?

A. Yes, sir.

9 Q. What book would show the amount that has been charged up to this time to operating expenses and the amount still left to be charged.

A. The General ledger.

Q. For what year?

A. For that year, 1907. I don't remember what period this last ledger covers. I think it started in 1906, I think so.

Q. Referring to exhibit "C" which is a report of the Company's business ending December 31, 1906, on page 25 there appears an entry of the Coke stock, and in the first line, being line No. 320, the coke on hand is entered up as being of the average value of \$18.60 per ton, whereas, on the next line the coke received during the same month is entered at \$4.77 per ton, do you know why that difference is made in the valuation?

A. That 18 dollar account?

Q. Yes?

A. It is because the Coke stock was short and the average rate per ton, the average price per ton, went up. We charged more into the Coke stock evidently than what we put in there.

Q. That is, it demanded an entry to make your books show up?

A. No, sir, it was an error in not charging it up. For instance, you have charged up so many tons of coke, and when you come to measure up your pile you found you did not have that money and they run the price up per ton.

Q. Now, on line 2327 the stock at the close of the year is invoiced at \$9.87 per ton, whereas, it is entered during the year at a much lower figure than that; how do you explain that?

A. We evidently made some profit on our coke and have put the coke in there at about the right figure and it brought the average price down.

Q. How did you come to enter the coke, for instance, in this same account on line 2324 "Coke Used During the year \$5.39" how
10 do you get at that price?

A. I think that is our coke and it was the handling or expense that went in there through the handling of it if the coke was used by ourselves.

Q. Does that have any reference to the market value of the coke?

A. No, sir; we credit coke in the pile at a certain figure and charge it to ourselves at the same figures plus expenses.

Q. How do you arrive at the figure at which you charge it in the pile?

A. Well, I expect that is more or less arbitrary.

Q. I think you testified that you sold coke here on the market at a certain price per ton?

A. Yes, sir.

Q. What was that?

A. I think last winter we got \$8.50 per ton delivered.

Q. Was that a little higher than it commonly runs?

A. Yes, sir, it was higher.

Q. I think before you testified it was \$8?

A. Well, \$7.50 to \$8, and then there is another price for dealers at the yard.

Q. Now, what does it cost you to deliver coke up town where you sell it?

A. O, it varies whether our men deliver it or whether we get lodged and have to have some of the transfer people. Where we have a transfer man it costs \$1.50 a ton.

Q. And where you deliver it yourselves?

A. I expect it would run in the neighborhood of one dollar.

Q. Is not the regular price for delivering coal here in the city per ton fifty cents?

A. Yes, sir, but they are well equipped for it; we don't
11 hire a man by the month and they can get all the men they want evidently. When business is rushing they don't have to go to some body that makes a specialty of hauling other stuff like we would.

Q. Do you know of any reason why coke should cost twice as much to deliver as coal?

A. No, sir, but it does.

Q. I suppose your books will show what you do pay for delivering coke?

A. Yes, sir; to outside people.

Q. And what it costs to deliver by your own teams?

A. Yes, sir.

Q. Now, in regard to the tar stock, do you fix a price on that arbitrarily the same as you do on coke?

A. We fix it at about what we think we can get out of it.

Q. Well, you don't sell very much of it, do you?

A. Not very much; there has not been any demand for it or market for it lately.

Q. That is, you sell it in a small way?

A. Yes, sir.

Q. What do you get for it when you sell it that way?

A. By the barrel we get from the ordinary customer \$5 a barrel, including the barrel.

Q. How much is there in a barrel?

A. About 50 gallons,—or 55.

Q. And the barrel is worth how much?

A. From \$1 to \$1.25.

Q. And the surplus that you have not sold off, what do you do with that?

A. Burn it under our boilers to use as fuel.

Q. To make steam?

A. Yes, sir.

Q. How do you arrive at the price which you shall put on that, or do you have any special rule?

12 A. We put it at about the same heating value, the same value that we would put on steam coal.

Q. The gas department turns it over to the electric light department and the electric light department uses it for generating steam and then sells the steam back to the gas department?

A. No, sir; that tar is sold to the gas department just as though these were two different concerns.

Q. You mean to the Electric Light Company?

A. The tar is sold to the Electric Light department.

Q. And then the electric department sells the steam to the gas company?

A. Yes, sir.

Q. I think you told me on your former examination that the gas department was the larger consumer of steam?

A. No, sir.

Q. Consumed more steam than the electric department?

A. No, sir; I said that the electric department was the largest.

Q. That is what you intended to say, was it?

A. Yes, sir.

Mr. ROSE: The plaintiff moves to strike out all of the testimony elicited on this cross-examination touching the cost of retort and operating expenses and the items of fuel and by-products for the year 1907 as wholly immaterial, irrelevant and not furnishing any evidence as to the reasonableness of the rate fixed by the ordinance at the time it went into effect; and upon the hearing we shall object to the consideration of such testimony.

13 Redirect examination.

Examined by Mr. ROSE on behalf of the plaintiff:

Q. Mr. Honeywell, which has the larger bulk for the same specific gravity, coal or coke?

A. Coke.

Q. Does it take more room to store coke in a wagon?

A. Yes sir, and a larger wagon.

Q. More shoveling and more handling per ton?

A. Yes sir.

Q. Does that element of itself necessarily increase the cost of the hauling?

A. It certainly does, yes sir.

Q. And the hauling?

A. Yes sir.

Recross-examination.

Examined by Mr. STEWART on behalf of the defendant:

Q. I want to call you- attention to the fact that in 1905 you appear to have charged the tar used 3.45 of a cent per gallon, whereas in the year 1906 you charge it up at 2 cents a gallon. Now your testimony was that you charged it at about what it was worth in the way of making steam, was there that much difference in those 2 years in the matter of the value of tar?

A. In steam making, no but I think there was some better market in 1905 than there was afterward for tar, and we credited up our residuals at a higher figure than we had and reduced the credit of our residuals.

Q. Then the value as a steam making product did not control the question?

A. Not altogether no sir. I don't remember that we used very much tar in 1905 for steam making purposes.

Q. In 1905 you seemed to have sold, in round numbers, 24,000 gal. of tar at an average of 6.58 *per cent* per gallon and to
14 have used in the electric plant in round numbers 34,000 gallons at 3.45 cents a gallon making a total output of 58,000 gallons. Now, in your report for 1906 you showed you sold 21,000 gallons, in round numbers, at 7.73 cents per gallon, and used in the electric department 18,524 gallons for which you charged the electric company but 2 cents per gallon. Now, that would indicate that your outside market was better that year in which you reduced the price to the electric department would not it than previous year?

A. I do not remember your figures there, our sales and what we used—

Q. You got more for what you sold, you got 6.68 cents in 1905 and 7.73 cents in 1906, that is, you got a higher price for what you sold, or nearly as much, how do you explain that?

A. That market would vary depending upon whether you sold tank car stock, or whether you sold stuff in barrel lots and in gallon lots, etc. I don't remember about those small sales.

Q. I notice, also, that whereas, in 1905 your total amount of tar made up 58,000 gallons in 1906—it appears to have been about 39,000 gallons—

A. I think we were running these benches in 1905, a part of the time only three benches in 1906.

Q. That is, you mean to say that you made less coal gas in 1906 than you did in 1905?

A. I think that is correct.

Q. Are you not mistaken about having made more coal gas in 1905 than you did in 1906?

A. I did not think I was.

Q. You just look it up and tell us what the figures are?

A. I have no 1905 report here.

Q. Here it is. What are the figures for 1906?

A. 70,181,000.

Q. And for 1905?

A. 59,427,300.

15 Q. Now, can you explain the great shortage in the tar made?

A. No, sir.

Q. Now, how much coal gas did you make in 1907?

Mr. ROSE: The plaintiff objects as immaterial and having no bearing upon the issues and as being at a time too remote and too long subsequent to the taking effect of the ordinance in question to have any bearing upon the reasonableness of the rate prescribed at the time the ordinance took effect.

A. 59,789,600 cubic feet.

Q. And how much tar did you make that year?

Mr. ROSE: The plaintiff objects as immaterial, having no bearing upon the issues and being a time too remote and too long subsequent to the taking effect of the ordinance in question to have any bearing upon the reasonableness of the rate prescribed at the time the ordinance took effect.

A. 57,413 gallons.

Q. Look at the report and see if that is correct, the original?

Mr. ROSE: The plaintiff objects as immaterial, having no bearing upon the issues and being a time too remote and too long subsequent to the taking effect of the ordinance in question to have any bearing upon the reasonableness of the rate prescribed at the time the ordinance took effect.

A. 21,175 gallons sold in 1907.

Q. And the gallons used?

16 A. 93,553 gallons, making a total sale and use of 114,738 gallons.

Q. Where did you get those figures if there was only 57,413 total gallons made for the year 1907?

A. From the manufacturing report. There was only 57,413 gallons of tar made in 1907.

Q. How do you account for the difference?

A. In the stock, probably, we had everything stocked up, no doubt, and had a big lot of tar on hand.

Q. Are your accounts made up on the actual value of the products for the year, or otherwise?

A. It is partially an estimate; those residuals have to be partially an estimate.

Q. Now, about how much tar do you make to a thousand feet of gas, or do you work it that way?

A. Tar made per ton of coal carbonized, 9 gallons, I have it here.

Q. That was in 1907?

A. Yes, sir.

Q. But in deducting the value of tar and of the residuals for 1906, you made a very much smaller deduction in dollars than you did in 1907?

A. No, sir, the same figures, 2 cents per gallon.

Q. I mean the aggregate deduction?

A. No, they are both figured on a basis of 2 cents per gallon.

Q. Now, in the year 1906, what was the number of pounds of coal carbonized?

A. In 1906 we carbonized 7,579.75 tons.

Q. And at 9 gallons per ton that would make about 68,000 gallons, would not it?

A. It was only 8.7 gallons per ton.

Q. Well, that would make about the same?

A. Yes, sir, practically, in round numbers.

Q. But you credited up as a residual for that year—

17 A. Let me see, multiply that by 8—yes, 65,000 gallons would be about right.

Q. You only credited up that year 39,000 or 40,000 gallons, did not you?

A. No, sir, credited manufacturing with 65,848.1 gallons.

Q. And what did you credit it up at?

A. Two cents a gallon.

Q. The whole business?

A. Yes, sir.

Q. And sold 21,000 gallons at 7.73 cents per gallon?

A. Yes, sir, that might be true.

Q. Why didn't you credit it up at what you got for it?

A. Well, there is some expense in that, the barrels, handling and one thing or another.

Q. Well, have not you entered up your expenses in a proper item?

A. Not in the 2 cents, no, sir.

Q. Well, anywhere?

A. Yes, sir, that would be some place; but previous to, possibly, 1904, 1905, along there some place, I don't know where, tar commenced to stock up and we had a lot of it and had to barrel it. We were crediting residuals at a high price, I think 5 cents per gallon: that was too high; we could not get that much out of it and we had to reduce that price which we did and we thought we would have to burn, possibly, all the tar; and we put it down to a basis of where we could burn tar on the same basis as we could steam coal, and credited residuals up with what we thought it was worth to us, what we could get out of it in some way, shape or manner.

18 Redirect examination.

Examination by Mr. ROSE, on behalf of plaintiff:

Q. Now, take the record of tar for the year 1905 and previous to that. Did you burn tar prior to that year to any extent?

A. I think 1905 is about the first year we ever tried burning tar.

Q. Previous to that was there a market for tar here, and had there been in previous years?

A. There had been in previous years, yes, sir.

Q. Since that has there been any market for tar here?

A. No, sir, it is very slow.

Q. Has there been any market with any gas companies for tar?

A. No, sir.

Q. Now prior to that time, in your operation there, what did you do with the tar, did you store it or what?

A. Why, we stored it and sold it—stored some and sold some; and they made tar ropes and tar walks and such things as that out of it.

Q. Tar roofing?

A. Some tar roofing.

Q. When you made it there did you have wells or did you have vessels to hold it in, holders?

A. When our capacity was full to overflowing it ran away.

Q. When did it run away?

A. I think some of it run away this year. I think we were filled up on everything this year and some of the tar went into the lake back of the west barrel.

Q. And have you credited to the gas department all of the residuals or tar that it is fairly entitled to have?

Mr. STEWART: The defendant objects as calling for the conclusion of the witness because the books would show the facts, and it is not the best evidence.

A. Yes, sir.

19 Q. Now, in actual practice you may state what the fact is as to whether or not you found that you had made excessive deductions from the cost of manufacture of gas of account of residuals or tar?

A. Yes, sir, we had until we charged it up at 2 cents. When we were crediting it at 5 cents we were giving the gas department too much credit; we could not get 5 cents a gallon for our tar.

Q. And what method was it you used to compensate for the excess credit?

A. Reduced the credit the next year all over and above the price we found it to be.

Q. When you sold tar at a higher rate than you have credited it for as manufacturing, is there any other distribution of the item by which the gas department ultimately gets credit for what you actually got out of it?

A. Yes, sir.

Q. Do you remember now how it is presented, whether in loss or gain, or how?

A. No, sir, I don't. The tar stock would get credit for your profit. It would naturally reduce your price per gallon.

Q. In these years of 1904 and 1905 and during the early part of the year 1906 when you fixed the price at 2 cents per gallon, did you have any controversy over rates with the city?

A. No, sir.

Q. Did you have any other motive in making that adjustment or credit on account of the cost of gas other than to make an honest distribution between the gas department and the electric department?

A. No, sir; an honest account of all business.

Q. Was it made with reference to any public exhibition, or anything of that sort?

A. No, sir.

Q. Are the books and reports in the same condition that they were at that time entered before any controversy arose here?

20 A. Yes, sir.

Q. You may state whether or not in your opinion the adjustment or accounting between the two departments of gas and electricity as shown on the books and reports, is just and fair?

Mr. STEWART: The defendant objects as being a conclusion, and the books would be the best evidence.

A. Yes, sir.

Q. Do you keep in touch with the management of gas plants generally over the country?

A. I try to.

Q. And the association of managers, and meet with them regularly?

A. Yes, sir I try to.

Q. What would you say as to whether or not the adjustment of the tar account has become a matter of some annoyance and intricacy in order to find out how to dispose of it and get value out of it?

A. It has been a matter of worry to all managers what to do with their tar. Previous to a couple of years ago there was not any very satisfactory burners; they could not burn their tar, and they tried to make it into tar paper and manufacture *in* up into paint and things of that kind.

Q. Do you know who the biggest handlers of tar in the country are?

A. The Barrett Manufacturing Co. They send out a slip that goes to every gas company the first of the year asking how much tar we have on hand and how much your estimated make is, etc. and they have all that data down pat.

21 Q. Who handles now the coal tar product of the country?

A. The Barrett Manufacturing people.

Q. And what is the market for tar, what is the price that they give to the manufacturer of tar, the gas company?

A. Oh, I don't know, that depends on the locality and whether you are loaded up and have got to sell it or have not, it is very low though.

Q. What was it in 1906 and 1907, do you know what the average is?

A. Yes sir, I got a bid from the Barrett Manufacturing people of 2 cents a gallon for the tar if the tar was laid down in St. Paul, Minnesota.

Q. Is there any market for the quantity you handle here, in the country, other than 2 cents a gallon?

A. No sir.

Q. And what you make there over and above that is your skill in handling it here?

A. Yes sir, and by selling it in small lots to farmers, etc.

Q. In former years was there a higher price than there is now?

A. Yes sir.

Q. In the market?

A. Yes sir.

Q. There was a customer that handled it?

A. Yes sir, we sold a lot of tar to a local man here and sell some to him yet.

Q. I mean the general market. Is there any avenue or was there formerly any avenue by which you could get any in the general market a higher price than 2 cents?

A. Previous to the last couple of years you mean?

Q. Yes sir?

A. Yes sir.

22 Q. And has there been since the last two years?

A. No sir.

Recross-examination.

Examined by Mr. Stewart on behalf of the defendant.

Q. Where is this Barrett Manufacturing Company located?

A. Oh, they have offices scattered around the country at different places, they have got an office in Omaha.

Q. Where is their main office?

A. I don't know, Chicago I think though. I think their main office is in Chicago.

Q. Referring now to the coke account found on page 25 of Exhibit "101" I noticed you have an item "value of coke received or made during the year" that is the yearly summary as being \$17580.92; now how much is that credited up as the residual?

A. \$20,537.73.

Q. Where do you get those figures?

A. Why from so many ton to coke and so many ton of breeze, 4143 82/100 ton- of coke at \$5.00 and 443 63/100 ton- of breeze at \$1.00.

Mr. ROSE: The plaintiff moves to strike out the last answer because it refers to the year 1907 and does not furnish any evidence as to the reasonableness of the rates prescribed by the ordinance at the time the ordinance went into effect and we shall object at the hearing to the consideration of the items given during the year 1907.

Q. That doesn't figure out right does it?

A. No sir.

23 By Mr. ROSE:

Q. What is the difference?

A. About \$500.00 or \$600.00.

Q. Now how many ton- of coal was carbonized that year?

A. 7098 57/100.

Q. And how much did it yield per ton of coke?

A. Mr. ROSE: The plaintiff objects as immaterial, the experience during that year has no relevancy to the reasonableness of the rates prescribed by the ordinance.

A. 1250 pounds per ton of coal carbonized.

Q. Is the breeze entirely separate from that?

A. No sir, it is all in this, the coke and coal is all in there.

Q. How much of that coke is charged up to the water gas department?

Mr. ROSE: The plaintiff objects because it is at a period too remote, and incompetent.

A. 2698 18/100 ton-.

Q. And at what price?

A. \$5.00.

Q. How much coke did you sell that year?

A. Mr. ROSE: The plaintiff objects as immaterial and being at a period too remote to have any bearing upon the issue.

A. Coke and breeze about 911 ton-.

Q. And at how much per ton?

Mr. ROSE: The plaintiff objects as immaterial and being
24 at a period too remote to have any bearing upon the issue.

A. It is more than that; 64064 82/100 ton- of coke 626 25/100 ton- of breeze sold and used.

Q. And how much was sold is what I want to get at?

A. I would have to take the difference between what was used in the water house and the water gas and make a subtraction and I could tell you how much was used.

Q. You cannot make that computation now I suppose? But suppose you sold 1000 ton- of coke at \$8.00 a ton and it cost \$1.00 a ton to deliver it leaving you net \$7.00 you would still, assuming these figures to be correct, you would still credit your coke as a residual at \$5.00 a ton would you in the way you keep your account?

A. That is right. There is some other expense in that but we aim to credit it up at what it is worth. If we found out we could get \$7.00 for it we would credit it up at \$7.00 and charge ourselves with \$7.00 with whatever we used.

Q. Does the value you put on your coke that you used in any way effect the earnings of the gas department as a whole?

A. No sir, I would say not.

Q. Did you use any coke in your electric department?

A. We used breeze, yes sir.

Q. You did not use any coke?

A. No sir.

Q. In there in the previous question that I asked you I meant to be understood as asking the question as to whether the value you put the coke that you used in your gas department at effected in any way the earnings of the gas department?

A. We aim to charge it up at the same price that we credit it up for our own use so it would not have any effect.

25 Q. But the tar which you disposed of to the electric department the price that you put on that would effect the earnings of the gas department would it not?

A. Yes sir.

Q. The price that you sold gas at and the cash you received from

such sales would effect the earnings of the gas department would it not?

A. Yes sir.

Q. But you have not taken that into consideration in crediting up the value of the residual?

A. Yes sir, we aim to get just as high a price for our coke as possible in order to reduce our manufacturing costs.

Q. Yes, but you do not credit what you actually receive for coke, you simply use the same credit. That is suppose you received \$7.00 a ton for coke when you sold it, net, you did not credit it up at \$7.00 you credited the whole of your coke output at \$5.00 a ton?

A. Yes sir, but if we can make a big profit on our coke we would gradually raise up the price that we credited this residual at, or at which the residual is credited, so that a boom in the coke market or more money in the coke market would effect our manufacturing company.

By Mr. ROSE:

Q. That is the profit over and above the price credited is also credited later when you make the profit?

A. Yes sir, just as a profit.

Q. Now if you would credit as a residual what you received for coke that you sold and made no charge against the water gas department for the coke used in that way, you would get the entire benefit of the residual wouldn't you in arriving at the cost
26 of your mixed gas.

A. Yes sir, but your gas would not be in proportion. It would not be correct bookkeeping.

Q. You can tell just what your water gas costs are separate and distinct from your coal gas?

A. Yes sir.

Q. The only object is charging the water gas department with this coke is to ascertain what the water gas costs is it not?

A. To make it stand its proportion of the expense and charge it up at what it is worth.

Q. You want to find out what it costs do you?

A. Yes sir.

Q. That is the only object of charging up the coke to the water department?

A. The object is to reduce the price of your coal gas and give that credit.

Q. So you could get a comparison of the costs of the two kinds of gas?

A. Yes sir.

Q. It does not effect your earnings at all this charging the coke up to the water gas?

A. No sir.

Q. Referring to line 2323 in Exhibit "101" there seems to be an item of \$2902.13 expense on coke, where did you get that from?

Mr. ROSE: The plaintiff objects as immaterial and as being at a period too remote to have any bearing upon the period of the rates prescribed by the ordinance.

A. From handling the advertising and everything connected with the coke expense, every expense connected with our
27 coke.

Q. Is that deducted in arriving at the coke residual or is it added?

A. Why that would be added. If you had 1000 tons for instance that you had credited up at \$5.00 in your residual account and had expended \$2000 in handling you would have a thousand ton- that was worth \$7.00 in your stock, that had cost you \$7,000 that you would have to sell for something over \$7,000 in order to get even.

Q. Now on page ten of Exhibit "101," coke residual is entered at \$20537.73?

A. Yes sir.

Q. Now has this coke expense been deducted from that or added to it?

A. No sir, nothing done with it, that coke expense refers directly to the coke stock and not to the residual.

Q. Where does it appear in the cost of the gas?

A. It does not appear.

Q. Does not appear at all?

A. No sir, this coke expense is not a gas expense.

Redirect examination.

Examined by Mr. ROSE on behalf of the plaintiff:

Q. Are the sales of the residual, of tar and coke and breeze all credited and properly distributed to some account so that ultimately in the general distribution the proper accounts get credited for that?

A. Yes sir.

Q. So that in the final result does it really make any difference at what price you charge up the residual stock in advance of
28 realizing anything on it? *advance of realizing anything on it?*

A. No sir.

Q. And all of those things compensate and clear up in the final accounting according to your system?

A. Yes sir.

Q. So there is no credit lost?

A. If you credit your residual *is* too low a figure as soon as you find that out you credit them at *a* high figure; if you credit them too high you reduce your credit.

Q. Now does the same thing occur if you find your stock is credited for more than you have in there?

A. Yes sir.

Q. You have given too much?

A. Yes sir.

Q. Does that have to be adjusted from the actual expense of handling it?

A. Yes sir.

Q. Is there any way that you can tell absolutely what you will realize out of these residuals except by actual experience?

A. No sir.

Q. And to account for it and keep the actual cost as near to what it is as it is possible to estimate them, is there any other way than to fix in entering the credit for the stock in hand and advance of its disposition and sale than to fix in a measure an arbitrary credit?

A. No sir no way. For instance we have no coke market now in the summer time. If there doesn't anybody get any coal here in the summer we will boost the price of our coke up, we are the fellows that have got the coke and we will boost the price up and get credit for it.

29 Q. You spoke of advertising expenses. Do you advertise in the newspapers and otherwise in order to get a market for your coke?

A. We have to. You would not have any market unless you did.

Q. Without that advertising where would the fuel consumers of the town naturally go to get their supply of fuel?

A. To the coal dealers.

Q. Engaged in that particular line of business?

A. Yes sir.

Q. And is there any way you can get to the market otherwise than by advertising and giving special notice that you have a stock on hand?

A. No sir, we have to advertise and solicit.

Recross-examination.

Examined by Mr. STEWART in behalf of the defendant:

Q. Under what head do you put the costs of the advertising to sell your coke?

A. Coke stock expense.

Q. Have you any such item as that, advertising?

A. I do not know how much advertising we did this year in 1907.

Q. I asked you if you have any such item as that, advertising?

A. I don't know, I do not know whether we advertised any or not.

Q. Isn't it a fact that you carry that advertising all in one account?

A. No sir.

Q. Can you find on these books and point out where all these credits are properly allowed?

30 A. Yes sir, I think I can.

Q. Now I will ask you this afternoon, when you come to show me, where these different items of credit that you say all occur, are found?

A. On the coal stock and on the coal tar both?

Q. Yes sir, on both. Would it make any difference in the costs of your mixed gas if you would credit all of your coke at \$7.00 a ton instead of \$5.00?

A. Yes sir.

Q. How would it effect the cost of the mixed gas?

A. It would lower the price of coal gas, and the coal and water gas are a mixed gas.

Q. Would it increase the costs of the water gas?

A. Yes sir.

Q. In an equal proportion or not?

A. No sir, I do not think it would. I know it would not because we do not use all the coal in the water gas that is made, some of it goes in stock. If we used the same amount in the water gas as we did in the coal gas it would not cut any figure.

Q. Well if you credit it as a residual, all your coke at \$7.00 a ton, would it effect the costs of the company of the manufacturer of its mixed gas and if so how?

A. Yes sir, it would reduce the price.

Q. Of mixed gas?

A. Yes sir.

(By Mr. ROSE:)

Q. It would be only temporary, when you finally sold it out and distributed the items of loss over what you have credited it would finally work out right at the end anyhow?

31 A. Yes sir.

By Mr. ROSE:

Q. So it would not finally make any difference would it, in the final result?

A. No sir, if we did not get \$7.00 for our coke, no sir. Without any regard to sale if we just credited this up at \$7.00 of course it would reduce our price on gas.

By Mr. ROSE:

Q. But you take account of sales in actual practice?

A. Yes sir, have to and must.

By Mr. ROSE:

Q. And in the final accounting it would work out just according to your experience in either case wouldn't it?

A. Yes sir.

(By Mr. ROSE:)

Q. And the only thing in keeping an accurate estimate in advance is to credit it up at what your usual experience would indicate you would get out of the residual?

A. Yes sir; so you would not have to go and make some adjustment.

Q. Well if you sold half of your coke at \$7.00 a ton and used half of it in making water gas which you credited up at \$5.00 per ton under your system would you still credit the whole of the coke output at \$5.00 per ton?

A. You mean if we got net \$7.00 a ton for coke would we still charge it up at \$5.00?

Q. Yes sir.

A. No sir, we would credit the residual with \$7.00 and charge up what we used at \$7.00.

Q. Your testimony is then, as I understand it, that although you

32 sold coke in 1907 at \$8.50 a ton by crediting it up, all of the output at \$5.00 a ton as a residual, the difference between \$5.00 and \$8.50 is exactly balanced by the expense of handling and selling the parts that you sold?

Mr. ROSE: The plaintiff objects as not a fair statement of the witness.

Q. Can you show where there has been a profit credited up in addition to the \$5.00 a ton?

A. I do not believe we have any profit in the coke.

Q. Well can you show us any loss?

A. Well, there is the expense and there is your price per ton and there is the stock at the close of the month, it is worth \$5.49 and we have credited that up at \$5.00 a ton so we are pretty close on that.

Q. But you started that account in at \$9.87 a ton?

A. Yes sir, that is what it costs us, handling and shortage and everything costs us that much. If we only get \$4.00 from that we did not take that \$4.00 away from the residual.

Q. How do you figure \$9.87 as being the cost, do you start with \$5.00 as a basis?

A. Yes sir, with what is credited up, start with the same figure.

Q. Now can you show anywhere in any of these reports where there has been either any loss charged to the residual account on coke or any gain credited?

A. No sir, because when we had a loss we tried to even it up in the stock coke itself and not to go back and change the manufacturing report.

(By Mr. ROSE:)

Q. The gross sum is credited in there?

A. Yes sir.

Q. In the coke stock account?

A. Yes sir.

Q. And that you carry from year to year?

33 A. Yes sir.

Q. But that doesn't really then give you any index as to what, if you segregate a single year of your gas business your coke account would not then fairly indicate what your residuals had been worth for that particular year for the reason that you have been carrying the gains and losses in your coke account is that true?

A. Very nearly so not absolutely correct, you have got to take some leeway, you cannot tell what your coke is going to be worth in the fall; we cannot tell what it is going to be worth this fall that that we are making now.

Q. If you sold half of your coke in 1907 for instance at \$8.50 and used the balance of it in making water gas it would not be a fair showing for that year to simply deduct as a residual \$5.00 per ton for your coke providing of course the expenses did not equal the difference between \$5.00 and \$8.50.

A. If the expenses did not, no sir. There is a shortage and ex-

penses and advertising and the straightening up of the account would not no sir.

Q. The way to get the correct value of the coke residual for 1907 for instance would be to take the number of tons of coke sold, deduct from it the expense of handling and selling it and deduct that from the cost of your mixed gas?

A. Yes sir, that is right that is the way it works out to get your average cost per ton.

Q. Suppose half was sold and the other half was used if you simply would take the net receipts from the coke sold and deduct it from the costs of your mixed gas? That would leave the net costs of your mixed gas?

34 A. You do not use any coke in mixed gas you use it in the water gas and coal gas, you use it in both departments. We could wait until the end of the year and give your manufacturing department credit for the stuff if we wanted to do it, if we wanted to do it that way.

By Mr. ROSE:

Q. You could not tell what the cost was?

A. No sir, not until the end of the year. If you had a good market your costs might be low but if you don't have a good market your costs might be high.

(By Mr. ROSE:)

Q. But if you waited until the end of the year and after deducting the expense of handling and advertising and disposing of your coke, if you would then take that net sum that was left and deduct it from the total cost of your mixed gas that would leave the net costs of your mixed gas, wouldn't it?

A. Yes sir, that is correct.

Witness excused for the present.

It being now 12:00 o'clock an adjournment was taken until 2:00 o'clock p. m. same day, May 7, 1908.

35 Filed Jul- 6, 1908. Geo. H. Thummel, clerk, by J. H. McClay, deputy. A. D.

2 O'CLOCK P. M., May 7, 1908.

Parties met pursuant to adjournment and the following proceedings were had and done.

GEORGE KNOTT, being produced and duly sworn on behalf of the defendant, testified as follows:

Examination by Mr. STEWART on behalf of the defendant:

Q. Where do you reside?

A. At 744 south 9th street.

Q. How long have you resided in this city?

A. Since 1882.

Q. And what is your occupation?

A. Well, at the present time I am not doing anything. I used to be in the grocery business. I am assessor at the present time.

Q. Where was your grocery store located?

A. 100 L street.

Q. That would be about 2 and L?

A. No, 1st and L streets.

Q. When was it you were in business there?

A. I sold out three years ago this summer.

Q. How long were you there?

A. Sixteen years, I think, 16 or 17 years.

Q. How far is that from the gas company's plant?

A. Just one block west of it, in the next block west of it.

Q. Where do you assess, in what part of the city?

A. I assess in the Second Ward from M to F, and from 11th street west.

Q. Does that include the territory where the gas company is located?

A. Yes, sir.

36 Q. Do you assess real estate in that section of the city?

A. Yes, sir.

Q. Are you acquainted with the values of lots in that part of the city?

A. I think so.

Q. Are you acquainted with the block of ground where the gas company's plant is situated?

A. Yes, sir.

Q. What, in your opinion, is that worth per lot?

Mr. ROSE: The plaintiff objects for the reason that the witness is not qualified to answer and is not shown to have ever dealt in real estate or have sufficient knowledge of real estate values there to entitle his opinion to be received.

A. Why, the lot values in that locality range from \$350—from \$250 you might say to \$400—the corners, of course are worth a little more.

Q. The corners would be worth \$400, and the inside lots \$250?

A. The inside lots would be worth from \$250—it would be owing to the lay of the ground. Some of those lots are very low and are not worth that.

Q. Take this block of ground where the gas company's plant is located?

A. Well, I should judge——

Mr. ROSE: The plaintiff objects for the reason that the witness is not qualified and is not shown to have ever dealt in real estate or have sufficient knowledge of real estate values so as to entitle his opinion to be received.

A. Why, I would say they were worth from \$250 to \$400 in that particular block, the inside lots being \$250 and the corners, I would put at about \$400.

37 Q. Are you deputy county assessor?

A. Yes, sir.

Q. How long have you assessed in that section of the city?

A. Thirteen years.

Cross-examination.

Examined by Mr. ROSE on behalf of the plaintiff:

Q. What railroad advantages or trackage facilities does this block have?

A. Well, it has got all the railroad facilities that it needs. I think it has a track right in the center of it right through the block and it has some right east of it. There is one track that runs right in through the middle of the block so that they can unload their coal either way.

Q. What do you know about the sale of real estate where they have trackage facilities for storehouse or warehouse purposes, or otherwise, along the B. & M. Railroad track; do you know of any sales being made for that purpose?

A. I cannot think of any at the present time, no, sir.

Q. Don't you know there have been numerous sales of that character where lots in that vicinity sold for as high as \$2,000?

A. Not in that locality to my knowledge.

Q. Very close to that locality?

A. It may be but I don't know it. I do not know where it would be.

Q. What lots with trackage facilities down there can be obtained on the market for as low as the highest price you have put on them, \$400?

A. Well, there is not any, not down in that locality.

Q. There is not a lot with trackage facilities between there and the Burlington station that can be approached for any such
38 a price as \$400 even though it be an inside lot, is there?

A. I do not know of any; I do not know that there is any lots that have any trackage facilities in that neighborhood within two or three blocks. You see the railroad is right east of the gas company's plant, and it between the tracks there are not any lots.

Q. So that there would not be any for sale?

A. Not to my knowledge; I don't know.

Q. Do you know of properties that have been purchased there within the past three years right adjoining the gas house, the gas company's lots?

A. There have not been any purchases adjoining them to my knowledge. Of course, there are not any except west of it.

Q. Do you know where block 77 is?

A. I think so; it is right across, catcornered, is not it?

Q. I am asking you?

A. I think that is the one, I would — be right sure but think that is the one.

Q. What block do you refer to, the one owned by the gas company?

A. 77.

Q. Is block 77 in the adjoining block?

A. No, sir; I think it is across the street.

Q. Well, it would be a contiguous block but for the street?

A. They don't run in rotation there; they dodge back and forth, you know because it is kind of an irregular plat. The way it is platted down there it does not run in rotation when you get down there; they just take in the bottoms down there, and when you get up here they run in rotation again.

Q. But they run in rotation down there don't they; it is platted and they run in rotation down there? It is a part of the original plat of the original city of Lincoln is not it?

A. I don't think so.

39 Q. You think block 79 is not a part of the original plat of the city of Lincoln?

A. It is a part of the original plat, but the blocks don't run 1, 2 and 3 and so on.

Q. It is in the original plat is it?

A. Yes sir.

Q. And block 77 is in the original plat located near there?

A. Yes sir.

Q. And they run in regular rotation there the same as they do in the original plat?

A. I didn't say so.

Q. I am asking you to correct your answer?

A. I said I didn't think they do.

Q. Do you know whether they do or not?

A. I think they do not run in regular rotation.

Q. You know that without looking at the plat or studying it so as to refresh your recollection, do you?

A. Yes sir.

Q. For what use are lots in that neighborhood priced by you at from \$250 to \$400, what are they used for?

A. Assessed value or buying value.

Q. Well, for what uses are they adapted?

A. I am not buying any.

Q. Take a lot that you would place a valuation of \$250 on that is not subject to submerging, to what uses would it be adapted that would give it a value of \$250?

A. Well, for a dwelling house, or for any other purpose that you wanted to make of it.

Q. Would you make that difference between a dwelling house lot and a trackage lot?

A. Not in that particular locality.

40 Q. You don't make any difference do you?

A. Not in that locality.

Q. I say you have not made any in your testimony, have you?

A. Not in that locality.

Q. And you don't take into account at all the fact that this has railroad and switching facilities that enables it to be used for commercial enterprises?

A. No sir.

Q. And it is your opinion now that that would not cut any figure in the value?

A. Not in my estimation.

Q. You say you run a grocery store down there?

A. I did.

Q. How big a store room did you have?

A. That is immaterial.

Q. How big a store room did you have?

A. That is a matter of my own; it is my own private business.

Q. Are you ashamed to state? Is it so small that you are ashamed to state it as a business enterprise?

A. That is my own business. I came here to be a fair witness and I don't want to be jangled around in any shape or form whatever. I came here to testify to anything I know, but that is my private business.

Q. You came here to testify to low values, didn't you?

A. No sir.

Q. You were qualified by Mr. Stewart by showing that you have conducted a business there?

A. No sir.

Q. Now, did you have a grocery store in your private residence?

A. That is my business, Mr. Rose.

Q. What kind of a grocery store did you have?

A. I am not here to answer these questions.

41 Q. I think you have to answer them?

A. It does not make any difference, but at the same time I don't think I have to in this court. I don't have to answer it at all.

Q. Then, you refuse to answer that, do you?

A. Yes, sir.

Q. How big a grocery store did you have?

A. I said I refused to answer.

Q. What was the value of your stock?

A. That is another one.

Q. It is a small grocery store, was not it?

A. I believe you have been there, Mr. Rose.

Q. Was it a small store or a large store?

A. I can tell you; I can answer it. It was a small store. The building was 18 x 24 and the stock run from \$800 to \$1500. I can give that but all the same I don't see that it cuts any ice.

Q. Is that the only commercial enterprise you ever was in in Lincoln?

A. Yes, sir; Well, I have been in grocery business up town here, too, but then that is the only business.

Q. And you have no occupation now except as deputy assessor?

A. Yes, sir.

Q. And that occupies your time the greater portion of the year?

A. Three months more or less.

Q. And the rest of the time you some times get a job as bailiff in the District court?

A. I have been.

Q. And doing odd jobs of that sort?

A. (Not answered.)

42 Q. Have you ever bought or sold any real estate in the last two years?

A. Yes, sir.

Q. Where?

A. I sold that property down there.

Q. You sold that three years ago, did not you?

A. I sold it three years ago.

Q. Did you sell it for \$300?

A. No, sir. I sold it for \$1050. 75 feet and about \$2500 worth of improvements on it.

Q. Has it increased in value in the last three years?

A. No, sir.

Q. Has real estate generally increased in value any in the last three years?

A. Yes, sir, it has, but down there it has really decreased.

Q. It is getting worse all the time, is not it? Has it ever been higher than \$250 a lot?

A. I believe it was before the Gas Company was there.

Q. Were you there before the Gas Company was there?

A. Yes, sir.

Q. When was it the Gas Company moved there?

A. The Gas Company was moved there about in 1891 or 1892. I would not say positively; but in 1891 or 1892, if I am not mistaken.

Witness excused.

Filed Jul- 6, 1908. A. D. Geo. A. Thummell, Clerk, by J. H. McClay, Deputy.

THOMAS H. PRATT, being produced and duly sworn as a witness on behalf of the defendant, testified as follows:

Direct examination by Mr. STEWART, on the part of the defendant:

Q. What position do you sustain to the City of Lincoln?

A. I am City Clerk of the City of Lincoln.

Q. How long have you been such clerk?

43 A. Since April, 1899.

Q. As such clerk do you have the custody of the ordinances passed by the mayor and council of the City of Lincoln?

A. Yes, sir.

Q. Is this Exhibit 102 one of the ordinances of the City of Lincoln?

A. It is a copy of one of the ordinances.

Q. Is it a certified copy?

A. Yes, sir.

Q. That is a copy of an ordinance on file in your office?

A. Yes, sir.

Mr. STEWART: Defendant offers in evidence Exhibit 102. No objection.

Mr. STEWART: Defendant offers in evidence Exhibit 103. No objection.

Q. I will ask you if you have examined the records in your office to ascertain whether or not there was any ordinance passed by the City of Lincoln regulating the price of gas between this ordinance, dated October 9, 1899, an ordinance known as the dollar gas ordinance set out in complainant's petition dated November —, 1906, have you made an examination of the records for that?

A. Yes, sir.

Q. And there is no other ordinance?

A. No, sir.

(By Mr. ROSE:)

Q. There is nothing pending but those two ordinances?

A. That is the dollar gas ordinance, that is the only one now pending. Whether there was one passed and appealed or not, I am not so dead sure.

Q. Well, look it up; I want you to be sure.

A. Well, I think there was not any. There was some talk of it, but it was never passed.

Q. You look that up again, and if there should be any
44 ordinance that has been passed, I will ask you to produce it.

A. All right.

Cross-examination.

Examined by Mr. ROSE, on behalf of the plaintiff:

Q. From time to time ordinances were introduced in the council?

A. Yes sir, quite a number.

Q. And the subject of gas rates has been one of pretty general or rather continuous agitation in the council itself?

A. Yes sir, and council committees.

Q. It has been a subject to your personal knowledge of frequent conference between the officials of the gas company and the city?

A. Yes sir, that is true.

Q. And for the most part any agitation by members of the council has been met by voluntary reductions on the part of the gas company?

Mr. STEWART: Defendant objects as incompetent, immaterial and irrelevant, and calling for the conclusion of the witness as to what motives actuated the Gas Company in making reductions.

Question withdrawn.

Q. But the gas rates actually charged then were lowered from maximum of \$1.50 prescribed in the expiration period of the 1899 ordinance to \$1.20 net—what I am getting at, is that the reduction below the maximum of \$1.50 fixed by the ordinance was made by the company without the coercion of any city ordinance or authority?

A. Without any authority by ordinance.

Q. And do you personally — whether it resulted from conferences and negotiations between the officers of the gas company and the city—what is your personal knowledge?

Mr. STEWART: Defendant objects as calling for the conclusion of the witness as to the motive that caused the gas company to reduce the rate.

45 A. Yes, sir.

Q. What is the fact?

A. There was an ordinance introduced or there was talk of an ordinance being produced, and it was put into the hands of a committee, and Mr. Dunn was a member of that committee.

Q. Fixing the date.

Mr. STEWART: The defendant objects as too indefinite and not proper cross examination.

A. And Mr. Dunn stated——

Mr. STEWART: The defendant objects to the witness stating what Mr. Dunn stated as hearsay.

(WITNESS:)

A. And Mr. Dunn stated that the company be required to reduce gas to \$1.20 and Mr. Dunn stated that the company had agreed to reduce it to \$1.20, reduce gas to \$1.20, and the matter was dropped.

Q. I want to ask you if that committee of which Mr. Dunn was a member made any written report?

A. No, sir; it made no written report.

Q. Was this oral report by Mr. Dunn made in open council?

A. That is what I would not say now.

Q. Were you present at the time it was made?

A. Yes, sir, I was present at the time it was made, but I don't think it was made any part of the minutes. He just made the statement.

Redirect examination by Mr. STEWART:

Q. You don't know when that was?

A. No, but I think I can find out, though.

Recross-examination by Mr. ROSE:

Q. Until the incident that you have mentioned which took place, do you recall whether or not there had been maintained a differential rate for light and fuel?

46 A. There were two different rates, yes sir.

Q. And after this report was there more than one rate?

A. That is all.

Redirect examination.

Examined by Mr. STEWART on behalf of the defendant:

Q. Do you know when this dollar gas ordinance was introduced?

A. No sir, I could not tell you when it was introduced. I know it was introduced.

Q. Do you know of any other ordinance that was introduced regulating the price of gas?

A. Prior to that?

Q. Yes?

A. Oh, I think so.

Q. Well, do you know anything about it?

A. No sir, I could not tell you positively about it. The records will show.

Q. Will you look the records up and let us know what the facts are?

A. I will. When are you going to adjourn here? I have a lot of work and could not do it today or tomorrow.

Witness excused.

Filed Jul- 6, 1908. Geo. H. Thummel, clerk, by J. H. McClay, deputy. A. D.

ED. R. BING, being produced and duly sworn on behalf of the defendant, testified as follows:

Direct examination.

Examined by Mr. STEWART on behalf of the defendant:

Q. Where do you reside?

A. In Lincoln, Nebraska.

Q. What official relation do you sustain to the City of Lincoln?

A. Why I am the engineer in charge of paving really, I suppose that is the title.

Q. Your title is Assistant City Engineer, is it not?

A. Yes sir, you might call it that.

47 Q. Are you a civil engineer?

A. Oh, I have been in the business about seventeen years, yes.

Q. How long have you worked for the city in its engineering dep't?

A. I started in 1891—well, now that will be about 17 years.

Q. What class of work have you done during that time?

A. Well I have done sewer work, quite a bit of sewer work, and paving work, principally paving.

Q. Laying sewer pipe do you mean, digging trenches and laying sewer pipe?

A. Yes sir.

Q. And a good deal of paving you say?

A. Yes sir, principally paving for the last six years.

Q. Have you during that time had experience in the matter of digging and laying sewer pipe and in taking up and putting back pavement over sewer pipe, and gas pipes?

A. Why some, yes sir. It comes along in the course of work.

Q. Are you familiar with that class of work?

A. I think so.

Q. Now in the matter of laying gas mains and sewer pipes, is there any difference in the two classes of work?

A. Yes sir, considerable.

Q. In what respect?

A. Well, you use a different kind of construction altogether. You use iron pipe and lead joints—

Q. In what?

A. In gas or water, and the sewer is filled up with just cement, just cement joints.

Q. Have you had any experience in laying water pipes?

A. No sir, I never have laid any of them.

Q. I will ask you if you are familiar with the cost of gas pipe and material, if you are acquainted with the value of gas pipe?

A. Nothing more than what I have looked up recently.

Q. You have investigated that question a little have you?

48 A. Yes sir.

Q. And do you know what labor, what the cost of labor is in this market, in this vicinity, for doing such work as laying mains and sewer pipe?

A. Yes I think so.

Q. Have you made figures on the value and cost of replacing mains and service pipe of the Lincoln Gas Company in this city?

A. Yes sir.

Q. You have the estimate, have you?

A. Why I think you have it there.

Q. Is this Exhibit "104" your estimate of the cost?

A. Yes sir.

Mr. STEWART: The defendant offers in evidence Exhibit "104."

Mr. ROSE: The plaintiff objects to the receipt of Exhibit "104" in evidence as no foundation laid for it, no sufficient basis shown for the figuring and the witness who drafted it was not shown to be qualified.

Q. What did you figure the cost of gas pipe at per ton?

Mr. ROSE: The plaintiff objects on the ground that there is no qualification on the part of the witness, incompetent, and there is no testimony entitling his estimate to be given any credence.

A. Why I figured on a basis of \$33 a ton.

Q. Is that the market price now? If you know you may state.

Mr. ROSE: The plaintiff objects as incompetent, the witness has not shown himself qualified to testify.

A. Yes sir, about the market price at the present time.

Q. What part of this pipe is cast iron, or did you figure as cast iron?

A. Everything over four inch up is cast iron pipe.

Q. How did you figure on two inch pipe?

49 Mr. ROSE: The plaintiff objects because the witness has not shown himself qualified to answer the question.

A. I figured that per foot.

Q. Do you know what the market price of two inch pipe is per foot at the present time?

Mr. ROSE: The plaintiff objects for the reason that the witness is not qualified to answer and because the inquiry as to the price at the present time is immaterial.

A. It was figured at \$11.60 a hundred, or \$11.60 per foot.

Mr. ROSE: The plaintiff moves to strike out the answer as not responsive to the interrogatory, and objects to the witness reading from Exhibit "104."

Q. You mean that that is the market price?

Mr. ROSE: The plaintiff objects as leading and the witness is not qualified to answer.

A. Yes sir.

Q. This Exhibit "104" shows the number of lineal feet of the different sizes of pipe, does it?

A. The lineal feet, the miles and the lineal feet, and the tons.

Q. And the tons of pipe required?

A. Yes sir.

Q. And the cost of the two inch pipe per foot and the larger pipe per ton, the cast iron pipe?

A. Yes sir.

Q. Now does this Exhibit "104" show the various items that would go into rebuilding the mains and services of the Lincoln Gas Company in this city?

Mr. ROSE: The plaintiff objects on the ground that there has been no foundation laid.

A. From present prices, and what I can gather I would say that it can be done for that money, yes sir.

50 Q. What is your total, what would be the total cost?

Mr. ROSE: The plaintiff objects for the reason that the witness is not qualified and there has been no basis shown for the estimate.

A. \$241,407.29 is what it totals up.

Q. Does that include the cost of taking up and replacing the pavement over the mains and services in paved streets?

A. Yes sir.

Q. What is that cost separate from the other cost, or have you got that separate?

Mr. ROSE: The plaintiff objects for the reason that the witness is not qualified to answer.

A. Yes sir; I have it separate and also in the total.

Q. Give the total.

A. \$59,894.80.

Q. Now you may give the separate items?

A. It shows on the exhibit here; you have it here.

Q. Now Mr. Bing from your knowledge and experience in this class of work about which you have testified would you say that the figure given here is the fair and reasonable value of the material and labor that would be necessary to replace the mains and services as shown on this sheet?

Mr. ROSE: The plaintiff objects as incompetent, and because the witness is not qualified to answer; there is not sufficient foundation laid, or basis shown, for the introduction of the Exhibit.

A. I would say that it would replace it.

Q. What is Exhibit "105," what does that show?

A. Well, the weight of the different size cast iron pipe and pounds of lead per joint on the different sized pipe, and the cost of equipment for service; that is about the extent of it.

51 Q. That contains the figures that you use in making your computation in Exhibit "104?"

A. Yes sir.

Mr. STEWART: The defendant offers in evidence Exhibit "105."

Mr. ROSE: The plaintiff objects as incompetent, and the witness has not shown himself qualified to answer, and is not shown to have had any experience or any knowledge on the subject, and there has no proper foundation been laid.

Q. I will ask you if these items that you have used in there, if you know are the fair and reasonable market value at this time of those matters?

Mr. ROSE: The plaintiff objects for the reason that the witness is not qualified to answer, and that the same is incompetent and no foundation is laid.

A. Those are the correct figures, yes sir.

Cross-examination.

Examined by Mr. ROSE on behalf of the plaintiff:

Q. Have you ever worked in the construction of gas plants?

A. No sir, not in the construction of gas plants.

Q. Have you ever worked in the construction and placing of one service at a time?

A. No sir.

Q. As it is ordered from time to time?

A. No sir.

Q. Would you make any difference in the cost of services where they are put in on special orders from time to time, and the supplies and everything have to be taken out to the place specially, and the construction of the work all at one time?

A. Well, this is figured a little along that line.

Q. Along what line. I asked you if you make any difference in the cost, or would it make any difference?

52 A. Why yes, certainly it would.

Q. Which method would involve the greatest cost?

A. Why, where the work is put in piece by piece as it would be ordered would be the more expensive way.

Q. That would involve the gathering together of the supplies and a special trip made by the men and a team and time to and from work?

A. Yes, sir.

Q. How long have you worked for the city of Lincoln?

A. Seventeen years.

Q. Your entire experience in civil engineering has been in the service of the City of Lincoln? Has it?

A. Yes, sir.

Q. You have never worked, then, for any private corporation or industrial concern?

- A. Well, I have—not in this line, though.
Q. I mean in the line of engineering.
A. Yes, sir, in a sense I have; I did for a while.
Q. What was it?
A. Bridge work.
Q. For whom?
A. Sheeley & O'Shea.
Q. Was that contemporaneously with your work for the city?
A. That was just a short time, it was not very long.
Q. Was it while you were working for the city?
A. No, sir. I was out of there, possibly one year in the seven-
teen—I was out of the department.
Q. What kind of bridges were you constructing?
A. Oh, just pile bridges.
Q. There is a great deal of difference between that work, and the
engineering in a gas company?
A. I would say so, yes, sir.
53 Q. You would not think that would particularly qualify
you for estimating the cost of the construction of gas works?
A. I would not think so, no sir.
Q. There is a very great difference between the construction of
pavement and the construction of gas works, is there not?
A. Yes sir.
Q. Have you kept track of digging and back filling and all the
special items of cost in your work, for instance, in laying sewer
pipe?
A. Yes sir; we keep a pretty close record of that stuff.
Q. Do you keep a correct record?
A. We do at times.
Q. Do you keep any record of the cost of the water that you use
in flooding?
A. No sir.
Q. You keep no record of that?
A. No sir.
Q. That would be merely drawn from the water department?
A. Yes sir.
Q. Free?
A. Yes sir.
Q. Do you keep any record of the permits paid?
A. No sir; we do not have to take out permits to do our own
work—that is, the city.
Q. To do a job of plumbing and make connections require a
permit, does it not?
A. Yes sir, private plumbing.
Q. It does require a permit does it not?
A. Yes sir.

By Mr. STEWART:

- Q. In dirt streets?
A. In water works do you mean?
Q. No, I mean in gas works?

A. No, they don't require permits in dirt streets.

54 Q. Do you estimate anything for permits in your estimate here?

A. No sir.

Q. Estimate anything for water?

A. No sir.

Q. The lead joints, you did not figure, you never have had any experience in laying pipe with lead joints, have you?

A. No sir, I have not.

Q. Did you take into account the superintendent's cost over his gang of men in making up your estimate?

A. Well, Mr. Deffenbaugh, and I *a* got together on this making up of the figures, the basis of this work—

Q. I am asking you for your judgment, Mr. Deffenbaugh will, of course, speak for himself, but did you allow anything for the cost of a competent engineer for superintending such work while it was going on?

A. Yes, I did in a general way.

Q. How much did you allow?

A. Well, now, I did not make any special item of that, it is covered, though in the cost.

Q. How much difference did you allow for labor between four-inch pipe and twenty-inch pipe?

A. Well, let me see; I will have to think it over. I have got those items some place. (Witness refers to a paper.) The cost of laying four-inch pipe we figured at 14¢ a running foot; on 20 inch pipe at 40¢, the cost of constructing that class of work.

Q. Which was the more expensive, the large size pipe or the small size?

A. The pipe per ton, do you mean?

Q. Yes?

A. Why it is figured at \$33.00.

Q. You figured that the price per ton of 20 inch pipe was \$33 per ton, did you?

A. Yes sir.

Q. That is cast iron pipe?

A. Yes sir.

55 A. Yes sir.

Q. And you figured the price of four-inch pipe at \$33., did you?

A. Yes sir.

Q. And six-inch pipe at \$33?

A. The cast iron pipe I figured at \$33.

Q. What made you figure it all the same price?

A. It can be bought about that way.

Q. Well didn't you know when you made this estimate that it cost more per ton for a larger cast iron pipe than it does for the smaller cast iron pipe?

A. Per ton?

Q. Yes, per ton. Didn't you know that, in the market everywhere?

A. Not according to the quotations we had, no sir.

56 Q. You did not have the quotations from the current dealers who handle such pipes did you?

A. Yes, sir.

Q. Now, you may state to me a single——

A. Now, I don't know as I would say that——

Q. Give me a single quotation, give me the name of a firm that gave you a quotation on some of the 20-inch pipe and 4-inch pipe?

A. I am not prepared to do it. The quotation I referred to is from the Municipal Journal, and that is a quotation of \$33 per ton, cast iron pipe.

Q. Did you allow any sum for accidents or liability insurance?

A. No, sir.

Q. You would not call that an element at all, would you?

A. I would, yes, sir.

Q. That is an element you have omitted for whatever it may be?

A. Why, I don't think so, in a general way, I did not make any allowance for that one item, no, but we put the price of the construction at such a price that it will cover that.

Q. What did you figure the cost of replacing asphalt paving per running foot? Did you have any 20-inch pipe under asphalt pavement?

A. No, there is none according to your report.

Q. What do you figure the cost per running foot of opening and replacing asphalt pavement over 4-inch pipe?

A. I figure it at 58 1/3¢, or 58 and a fraction of a cent.

Q. Does it cost any money to cut that asphalt pavement, does it require any considerable labor to cut through it?

A. Yes, sir.

Q. Did you go through the bed of concrete, and binder and asphaltum?

A. Yes, sir.

Q. And then when the opening is made, the pavement has to be reconstructed?

A. Yes, sir.

57 Q. There has to be new concrete replaced?

A. Yes, sir. New Concrete.

Q. And new binder?

A. Yes, sir.

Q. And new dressing?

A. Yes, sir.

Q. The base has to be tamped, the bed has to be tamped?

A. That is the dirt below did?

Q. Yes.

A. Yes, sir.

Q. Flooded and tamped?

A. Not necessarily; if it is thoroughly tamped; it can be either flooded or tamped.

Q. Would not it be both?

A. It could be both.

Q. And would you expect to do that work at the same price per yard that the city did it originally?

A. Well, under the present prices here, and under the guarantees that now exist on asphalt pavement, the contractor is compelled to put this pavement back wherever water goes, either water or gas, at the same price per yard that he gets for his original work.

Q. He is not compelled to do that for a private individual?

A. He is compelled to wherever it is done under the city ordinances.

Q. And is that true in the cases where the guarantee has run out?

A. No, sir, but as long as the guarantee is in force.

Q. Do you know what Gardner paid to put the asphaltum back over the sewer in front of the Funk Block?

A. Why, no; I could not say that I remember the exact figure.

Q. Well, was not it exactly \$650?

A. I think that the retainer held by the city would pay
58 it whether they charged him that amount or not, I don't know.

Q. Did he not pay that amount and was he not charged that amount?

A. I could not say.

Q. It was not at the same price per yard that the city had to pay for the original construction of the whole pavement of the streets?

A. No sir; the guarantee had run out on that work.

Q. And the cost of cutting it would be added and the labor on that?

A. Yes sir.

Q. And you figure just the cost to the city of this asphalt pavement, don't you?

A. Yes sir, generally.

Q. I asked you what you did—I can see a good many reasons, can you not see any reason why you should not?

A. I don't think so at the present time. We are taking present time prices, the present time construction, and present time conditions. Now that is the basis on which I figured. We are not talking in the future.

Q. How many present time constructions would be made in asphalt paving after the guarantee had run out?

A. I cannot catch that?

Q. You know the guarantee has run out in some places, some districts, some asphaltum districts?

A. There is one district in the city of two blocks that the guarantee has run out.

Q. Has it run out on 11th street?

A. No sir.

Q. Has it run out on O Street?

A. No sir.

Q. Is the O Street concern insolvent, is the Green River Asphalt Company insolvent?

A. Why, as far as I know, they are.

Q. Does the city have any efficient guaranty on O street
59 asphalt pavement?

Mr. STEWART: The defendant objects as incompetent, immaterial, and irrelevant, and not proper cross examination.

A. They have a cash retainer there of some amount, I could not tell you what it is.

Q. But the company if it contracted to replace openings at the original price during the period of the guaranty could not now be compelled to perform that contract?

A. I think not; I don't think they are able to get service on that company.

Q. The company itself is insolvent and bankrupt, is not it?

A. Well, now, I could not tell you that.

Q. Is the 11th street guaranty still good?

A. Why, they have maintained that pavement up to date, yes, sir.

Q. When was that pavement constructed on 11th street, the asphaltum?

A. It was finished in December, 1898.

Q. And when will that run out?

A. That will run out December next, 1908.

Q. Was that a ten-year guaranty?

A. Yes, sir.

Q. Is ten years the highest term that has ever been given here as a guaranty?

A. Yes, sir.

Q. What is the lowest term.

A. I think the two blocks that we referred to on 12th street there, and one on N street, that is a five-year guaranty, and the balance is all ten-year stuff.

Q. What is the present guaranty?

A. There is not any—that is, you mean on what?

Q. On present contracts?

A. Why, there are no contracts on asphaltum, there is
60 nothing under contract at the present time on asphaltum.

Everything up to date has been ten years that is under contract or that has been put in.

Q. Now, do you take into account the condition under which any company would be permitted to open the pavement, the asphaltum pavement.

A. The conditions under which it would be permitted?

Q. Yes sir, by ordinance?

A. No sir, I do not.

Q. Do you know what the ordinances provide as a condition, a bond or otherwise for getting permission to open the pavement by the gas company?

A. Well, I think the gas company have filed a bond with the city clerk to take up and replace all the different classes of pavements. Of course, asphalt pavement, I don't know about. They probably pay the contractor his price for replacing them. I could not say in that one respect.

Q. But they have a bond to take up and replace in as good condition as it was, don't they?

A. Yes sir, and maintain it, I believe.

Q. And a bond for damages in case of accidents, to hold the city harmless?

A. I suppose the bond covers that.

Q. And notwithstanding those conditions, you just allowed and figured the same sum per yard for replacing the pavements that the city had to pay for the original pavement?

A. Why yes sir, I guess I would have to say I did. I figured on a basis of going right in and taking that out and putting this construction in, where the asphaltum exists, the pavement back in first class shape, and complete the job.

Q. And you figured that the original price would do it, and yet, you know if the company had to replace the areas removed in a ditch, it would not be possible to do it for the same cost that it would
61 to pave the whole street, for the same relative cost per yard?

A. I think they could do it as cheap.

Q. That is your judgement?

A. Under our guaranties here.

Q. No, that is not what I asked you, leaving out that guaranty.

A. Well, they don't replace the asphaltum.

Q. You figured that the original price would do it, and yet you know if the company had to replace the area removed in a ditch, that it would not be possible to do it for the same cost that it would be to pave the whole street?

A. Why, no sir, they could not; you can not do that.

Q. Now, this work by the Funke Building, that was in a district where the term of guaranty had expired?

A. Yes, sir.

Q. And the cost in that case would be very greatly increased from what could be obtained under the original contract from the paving contractor?

A. Well, there were some conditions there that you don't meet on all our streets here in the city. There was about 14 inches of concrete there that you will not find on any other street in the city of Lincoln.

Q. Well, the gas company would find it if they did any work in that street, would not it?

A. They would, if they got into that one particular corner of that street, yes, sir.

Q. Wherever it exists if the gas company had to make the opening, it would find it, would not it?

A. Yes, sir, they would find it sure.

Q. Now, did you estimate the same cost of digging a ditch
62 for a 4 inch pipe that you did for the six inch pipe?

A. Well, I struck an average.

Q. And your figures are all based upon an average?

A. In a general way.

Q. And yet, as a matter of fact, there is a greatly increased cost when it comes to the twenty-inch pipe, laying a twenty-inch pipe, in the mere matter of digging a trench?

A. Yes sir, you have to dig a wider trench.

Q. And it costs two or three times as much for one of these large pipes, the digging costs two or three times as much in one of these large pipes as it does in a four-inch pipe?

A. I would not say three or four times; it would probably double.

Q. So you don't make an accurate close figure on tracing each particular line of work, kind of summarized it and took a general shot or averaged it out so far as the digging is concerned?

A. Well, if you will notice in your figures on materials the most that you have are principally four and six-inch mains; the twenty-inch mains do not cover very much territory.

Q. So you don't make an accurate close figure on placing each particular line of work, you kind of summarized it, and took a general shot and averaged it as far as the digging is concerned?

A. Yes sir; I took an average of the ditch for all classes of pipe.

Q. You took an average on what you would call an approximation?

A. Well, an average is an average.

Q. Well, did you average the whole thing up? What basis did you calculate on to get your average? Did you fix an arbitrary sum or did you make an arithmetical calculation on that?

A. You can *lay* most any pipe up to about twelve-inch pipe, outside of your bell in a twenty-two inch ditch.

Q. Yet you are only allowing 18 inches in a ditch cut
63 through the asphaltum, are you not?

A. That is services, I believe.

Q. Now take your tracing and see if you do not only allow 18 inches in an asphaltum district?

A. Eighteen inches wide? You have no twenty-inch main under asphaltum and I don't think they have any 16 inch, and I don't believe they have got any 12 inch.

Q. Do you know whether they have got any 12 inch or not under the asphaltum pavement?

A. Why, I think that schedule there will tell that.

Q. You said it would take a 22-inch ditch for a 12-inch main?

A. I say you can lay a 12-inch pipe in a 22-inch ditch outside of the bell.

Q. What do you mean by the bell?

A. They usually dig around the bell so they can calk or lead, etc.,

Q. And how big a trench does it require for the convenient laying of a ten-inch pipe?

A. A twenty-two inch will cover it nicely.

Q. And there was a considerable portion of the main under the asphaltum that is ten inch, was not there, and a considerable portion eight inch?

A. I am not prepared to say right now; that is too many figures to remember.

Q. Forty-five hundredths of a mile of asphaltum is not there?

A. Yes, sir; of ten-inch.

Q. There is over half a mile of eight-inch under asphaltum, too, is not there?

A. Yes, sir; a little over half a mile.

Q. How wide a trench does it require for the convenient and practical placing of an eight-inch pipe?

64 A. Well, I would say that they would not open the asphaltum at the top any wider than twenty inches.

Q. But you did open it up wider than eighteen inches?

A. For an eight inch pipe?

Q. Yes sir.

A. Well, now that would be a question of judgment. We could open it eighteen inches and lay the pipe there, or we could open it twenty, just as we saw fit.

Q. For ordinary convenience and expedition of the work?

A. Well, that is usually up to the superintendent or foreman.

Q. It would actually require more than twenty inches opening for a ten inch pipe would not it?

A. No sir, it could be laid—it could be laid in, a ten inch pipe; it could be laid in a twenty two inch ditch. For a ten or twelve inch pipe a twenty-two inch ditch would be about right.

Q. You only figure on an opening for a service pipe of twelve inches, don't you?

A. Yes sir.

Q. In actual practice is not it true that the opening for a service pipe is made eighteen inches wide?

A. It is if they don't bore.

Q. I asked you if, in actual practice, where you dig a trench?

A. Why I think if we were opening up asphaltum, I don't believe we would open it up any wider than twelve inches to keep down the cost.

Q. You have estimated only a 12 inch opening for all services; have not you, except brick?

A. Well, that is in cedar block and asphalt streets, yes, that is in the paving portion.

Q. What would it be in dirt streets?

A. Oh, they dig out probably about 18 inches. I figure on about an 18 inch ditch, and in brick streets we would take out about 18 inches for service pipes.

65 Q. But for laying any sort of a main under a brick pavement, that would probably be a twenty-four inch opening?

A. Yes, sir; about twenty-four inches of pavement would be stripped.

Q. Could a good-sized workman get down into a twelve-inch ditch in the asphaltum and make his connections and do his work in a workmanlike manner?

A. They would not make their connections in a twelve-inch ditch. Perhaps where they made connections at the main, they would block it out to get room to work.

Q. That would require extra work to make that additional opening wider, would not it?

A. Yes, sir; a little extra work there.

Q. In laying service pipes, what item do you allow for breaking through the walls, the cellar walls, and the like of that?

A. I am figuring only to lot lines. So far as I am figuring on these services, the average is 50 feet; our streets are nearly all 100 feet streets, so that would just balance up, and take you to the lot lines either way. That is as far as my figures run.

Q. I believe you said you allowed nothing for the cost of permits?

A. No, we did not figure that item at all.

Q. And you did not figure anything for carrying the services from the lot line to the inside of the house?

A. No, sir.

Q. Nor connecting on with the meter?

A. No, sir; nothing only to the lot lines are my figures.

Q. You don't allow anything for meter connections?

A. No, sir.

Q. Do you know that the gas company has very largely constructed those service lines to the inside of the tenement and also made the lead connections with the meters in the houses?

66 A. I think they did at one time. I am not sure what they do in that respect now. I was not asked to figure that far in, though.

Q. If that should be allowed here—there is some testimony in regard to it—If that is a proper item to be allowed, then you have made no estimate upon that?

A. No, sir, I have not.

Q. I wish you would explain the item of \$3.35 under the item of labor—the item in the last column there, under the item of labor, so that we will understand what it means.

A. Well, that is labor for one service. You see, those items are here in a little better shape. I should have put them in this shape. (Referring to Exhibit 105.)

Q. You may explain what that item of \$3.35 for labor on each service consists of?

A. Well, that is the labor or cost of the service, an average of fifty feet in length on dirt streets.

67 Q. And how is that apportioned, to what particular work; give the details and items of it so that we can have a chance to check over with you with accuracy of your estimate?

A. Well, the items are all right here in regard to it.

Q. Give me the items of labor which go to make up one fifty-foot service?

A. The complete cost of the service would you rather have it that way?

Q. No, just the labor. I want to know what makes up that total—how much for the digging of the trench, etc?

A. I am not in shape to give you that. The labor seems to be \$3.35.

Q. Well, did you not go into the details to give the details of it?

A. Yes sir, I did at the time I made up this schedule, but I have not got it here.

Q. Did you make any inquiry as to what the actual cost of labor in those cases were to the company, to this particular company?

A. No sir, not to this particular company.

Q. Or any other particular company?

A. No sir, I based it on prices we pay men for ditch work.

Q. What other men would be employed in making that service aside from the laborers who dig the ditches?

A. In completing the service?

Q. Yes, and the labor of making the service?

A. Well, the pipe fitter.

Q. His wages?

A. Yes sir.

Q. He gets large wages usually, do- he not?

A. I would not say so.

Q. How much per hour?

A. An average of \$2.50 a day I think that would cover his wages.

Q. How much per hour?

A. Well, that would be about 25 cents an hour.

68 Q. Do you know of anybody here in this country now that works ten hours a day?

A. Yes, lots of people.

Q. What is a day's work here in common practice?

A. Why, paving work is ten hours all the way through and has been.

Q. I asked you in common practice what is a day's labor here?

A. Why, I believe the law provides for eight hours.

Q. In common practice, do you know, the average tradesman here in Lincoln?

A. Well, they run from eight to nine and ten hours.

Q. In common practice?

A. Yes, sir.

Q. What tradesman in common practice work to exceed eight hours per day for a day's work?

A. Well, I don't know as I could say exactly.

Q. There is not a single tradesman in a single trade in Lincoln that does, is there?

A. You mean Unions?

Q. No, I mean the tradesman, what is rulable for a day's work, what constitutes a day's work in Lincoln?

A. Lots of them do work over eight hours.

Q. What ordinarily constitutes a day's work for all sorts of work in Lincoln?

A. Eight hours.

Q. What is the whole cost of a single service according to your estimate?

A. Nine dollars we figured that.

Q. What other labor is involved outside of the gas fitter and the digging of the trench that goes to make up this \$3.35?

A. What other labor?

Q. Yes?

A. There is none.

69 Q. Does it cost anything to transport the material and distribute it at the work?

A. Well I made an allowance for that.

Q. How much of an allowance did you make for transportation and for the man that goes along with the wagon and horse?

A. The drayage for a single service I figure at fifty cents; that is where you are putting them in right along in a street. I did not

figure on going out and spotting one in here and then going out in another part of the town; I figured this as a joint job.

Q. You figured on the replacement and not on what it would necessarily cost the Gas Company in replacing its work as the demands of the community demanded it from time to time and one service in a place?

A. No sir, I did not figure it that way. I figured it as a straight job completed all at one time.

Q. What did you figure as a digger's salary or wages?

A. Well, you can hire good diggers—on an eight hour basis now do you mean?

Q. I want to know what you figured? You have fixed the hours. I think I asked you what you figured for a day's labor for digging trenches?

A. If you will tell me what you figure a day's labor now?

Q. I am asking you, you can give your own basis and give the price you figured on?

A. Well eight hours. You can hire a digger for \$1.75 per day.

Q. Who does that here, do efficient and competent help in public works do that?

A. Yes sir; most anyone that is digging a sewer ditch, or any class of digging, can hire men at that price.

Q. Efficient men?

A. Yes sir.

Q. Is not the price of common labor here in Lincoln \$2.00 a day for 8 hours?

A. In a great many cases, yes sir.

70 Q. Is not that the general and prevailing price that is paid?

A. It has been but I do not believe it is right at this present time.

Q. How many feet will a man open up in service that way, and inclose in a day?

A. Well about what average depth would you want to figure on?

Q. Well the average depth that you figured on, I do not know what it is yet. I am asking you about your own basis?

A. Well a fair digger would open up 100 feet easily of 2½ foot trench in a day.

Q. One hundred feet?

A. Yes sir.

Q. And who would close it, another man?

A. You could do it that way if you wanted to.

Q. What is the average depth that you give for two and a half foot openings, what average depth do you figure that one man could open 100 feet in eight hours?

A. About 2½ feet deep.

Q. About two and a half feet deep and two and a half feet wide?

A. No sir.

Q. How wide?

A. Well for service it would be about 16 or 18 inches.

Q. And he would average about 12½ feet an hour?

A. I think he would yes sir. At that depth, easily.

Q. Would that count any special labor for opening the service, where it was pavement?

A. No sir, this is in dirt streets I refer to now, this is straight dirt streets, straight dirt jobs.

Q. And you allowed the same did you in the case of cedar blocks, outside of the cost of opening, you allowed the same estimate at \$3.35 for the work under cedar blocks, and two course bricks and asphaltum did you not?

71 A. Not including the paving, the paving is figured separately.

Q. Exclusive of that?

A. Yes sir.

Q. Now did you estimate that on the average, the gas services were only buried $2\frac{1}{2}$ feet, that that was the depth of the trench that would be required to make these services?

A. I was figuring with you on the basis of what one man could do, and if I remember right two and a half feet was the basis we figured on services below the surface of the ground.

Q. How deep were the main trenches?

A. Oh, they varied.

Q. Well, about how deep a ditch do you figure on for the main trenches?

A. Well I figure on $3\frac{1}{2}$ foot ditch.

Q. And how would you connect the services with a three and a half foot main, if you only dug a trench $2\frac{1}{2}$ foot deep?

A. You would have to fall back to the main would you not, of a foot?

Q. I am asking you to explain it. At the point where the tap was made, the trench would have to be as deep as the main would it not, the service trench?

A. Yes, you would have to go right down to the mains.

Q. Then you figured on a ditch that would leave it a foot above the main did you?

A. I figured on an average, I am giving you an average.

Q. Now if it is three and a half feet at the main what would you figure it at the lot line?

A. Well I am not in the gas business, I would not want to say that I know exactly *that I know exactly* what you require for drainage of your pipe, but we figure it on a basis of services two and a half feet in depth.

72 Q. I was asking you why you did that. I want to see whether you made a reasonable figure in doing that, a reasonable basis; would you figure that at the lot line the trench would only be a foot and a half deep.

A. No sir, I would not.

Q. Well if it was three and a half feet deep at the mains then in order to make the average only two and a half feet, it would have to slope from the main, until it was only a foot and a half at the lot line?

A. The conditions differ now of course.

Q. You can see the point I am getting at?

A. Yes sir.

Q. A two and a half foot depth is not sufficient is it, in actual practice?

A. Well it is possible we figured on a three foot basis, Mr. Rose.

Q. Were you mistaken when you said you figured an average before of two and a half feet?

A. Well we figured it up. I would not swear whether we figured at a three and a half or a two and a half. But make it either one you please now, and we will go ahead that way. Or make it three feet.

Q. I am testing the accuracy of your own figures as you have given them. I am taking what you gave me; you would think now $2\frac{1}{2}$ feet would not be a sufficient average now would it?

A. I believe it was not in a great many cases.

Q. As the average?

A. Yes sir, I think it was as the average.

Q. Notwithstanding that the average depth of the main trench would be three feet and a half?

73 A. Well I admit it would run the services very close to the surface at the house, but we will stand pat on that anyhow.

Q. You stand pat just because you do not like to admit an error, is that the reason?

A. Well I think that was the basis we figured on, and I will stay by it.

Q. If you err now of course you expect an account to be taken of your error?

A. Yes sir; the difference would not make much in the cost.

Q. Would it make any difference in freezing the temperature of the gas?

A. Yes sir, I would say so.

Q. Do you know enough about the properties of gas to know what in this climate would be a reasonable depth to bury a pipe outdoors?

A. It ought to be down at least two feet at all points.

Q. Ought it not to be lower than that at all points?

A. Well for sure safety, yes sir, it ought to be.

Q. It ought to be three feet at all points out doors had it not with the severe winter climate that we have?

A. I think two and a half feet is pretty safe in this country.

Q. Is that the average or is that the minimum? Two and a half feet of safety would that be the average in practical engineering, or the minimum of safety?

A. Well it would be, let me see, it would be the average.

Q. Then it would freeze at two and a half feet depth would it not? Then it would freeze at the $2\frac{1}{2}$ feet depth would it not. In the cold weather we get out here sometimes. We have had weather here in the last two or three years where the maximum temperature in a week's time was 13 below zero, haven't we?

74 A. In a week's time?

Q. Yes sir, three years ago last March?

A. No sir, I don't think so.

Q. Thirteen degrees, either 13 or 14?

A. The maximum in a week?

Q. The maximum, the highest point in 7 days that the thermometer reached at one period there, three years ago last March, was 13 degrees below zero was it not?

A. No sir, not to my knowledge.

Q. You do not recollect that?

A. No sir.

Q. We do have very severe weather in this climate?

A. Just short spells.

Q. In the construction work that you have done, have you ever dug a ditch as deep as 2½ feet and only 12 inches wide, where men were expected to work?

A. Two and a half feet deep and only twelve inches wide?

Q. Yes sir?

A. I never did in my work, no sir.

Q. Did you ever know that to be done?

A. Well it is possible to be done.

Q. Is it practical in ordinary construction work to do that?

A. No sir.

Q. It is neither practical nor efficient to do that in ordinary construction work?

A. No sir, 16 inches is plenty wide for that depth for small pipe.

Q. Yet in making your estimate you only allowed the cost of a twelve inch ditch for services didn't you?

A. I did where they were cutting through asphalt.

Q. Did you for everything except brick?

A. No sir, dirt street services items.

75 Q. What width did you allow, 18 inches for asphaltum?

A. No not on services.

Q. Now let us look up your tracing here. You put a tracing here on Exhibit "105," that was first identified here?

A. Yes sir.

Q. And that is marked 12 inches for services, except brick 18.

A. That is services under asphaltum and under cedar blocks.

Q. And you never saw a trench of that depth, 2½ feet, constructed for work of this sort, that was as narrow as that?

A. Well I believe I could say I had yes sir.

Q. But manifestly that is too small an estimate, now you would say that, wouldn't you?

A. Well I would say it would not be the proper way to open up a ditch.

Q. The size of that ditch should be enlarged and a little additional allowance made for it?

A. (Not answered.)

Q. You say you have never laid gas pipe?

A. No sir.

Q. And what pipe have you laid?

A. I have done considerable sewer work and a good deal of ditch work.

Q. What kind of sewer pipe did you use? What kind of sewer pipe?

A. Citrified tile pipe.

Q. And what part of that work did you do?

A. Why I superintended the work and done the engineering, and run the men, and attended to the pipe laying, and the building of the man holes and the job complete.

Q. How much per foot did the digging of those trenches cost you?

A. Well it would range,—we usually did that work by sections. The digging would run all the way from 5 to 14 and 15 feet, of course it makes a good deal of difference there.

76 By Mr. STEWART:

Q. Do you mean cents or feet?

A. 14 or 15 feet in depth.

Q. And the deeper the ditch the more proportionately the cost?

A. Yes sir.

Q. You have to raise the dirt higher?

A. Yes sir.

Q. And the efficiency of the labor who is in a cramped place is lessened necessarily?

A. Certainly.

Q. Some of the mains in this city are down pretty far too, are they not?

A. What mains do you refer to, gas mains?

Q. Yes sir, some of the gas mains?

A. Well perhaps in places.

Q. Some of their main pipes from their works are buried 12 feet deep are they not?

A. I am not in shape to say.

Q. And some of them more, some of them 14 feet, are they not?

A. I could not say.

Q. Did you allow anything for those trenches, for the large mains, for any such depth as that?

A. No sir.

Q. Do you know the condition of the soil in the line through — the mains from the works up town traverse?

A. Why in a general way, yes sir.

Q. Now did you figure that it was necessary to dig the ditches low enough, so the pipe would rest beneath the influence of the surface water, those large pipe?

A. Well I did not know that the gas mains were that deep down through the bottom, down to the plant, no sir, I did not know that.

77 Q. As a matter —, in the work that you have done here you have really endeavored to make your figures as favorable to the city's cause as you could conscientiously, haven't you?

A. No sir.

Q. Well the errors that seem to develop here are all in favor of the city and against the company, are they not? Do you think you made any errors against the city's interests in this figuring?

A. Yes sir, I believe I have.

Q. You may show me a case where you figured too high, what for instance?

A. Well I think a great many of your services are put in without the taking up of a foot of street, and undoubtedly it cheapens the cost under lots of this pavement.

Q. Were you not figuring on replacement?

A. Would not that be in favor of the company?

Q. I thought you were endeavoring here to figure replacement costs against our engineer's figures for replacement costs?

A. I am.

Q. How could you make replacement costs without opening the streets? How could you replace the plant without opening the streets?

A. You could put in services could you not, new services?

Q. Without opening the streets?

A. Yes sir, in a great many places.

Q. How?

A. You could bore.

Q. You would have to get down at each end to connect would you not?

A. Yes sir, certainly but for instance under an asphaltum street.

Q. But you would have to dig a manhole or something there first anyhow?

A. Yes sir, you would have to have room to make your taps at the main, and be prepared at the other side some place to make your connection through.

78 Q. You would have to have a place for your auger?

A. Yes sir, that is the case, that is true.

Q. And can that be done here, practically, in the streets of Lincoln.

A. I know they do it.

Q. Here in Lincoln?

A. Yes sir.

Q. Successfully, the gas company?

A. Why they seem to do it successfully, they do it at least.

Q. In the streets.

A. Yes sir.

Q. Where did you ever see them do that?

A. I have got a service of my own right where I live, that they crossed under a thirty foot pavement, and never took up a shovel full.

Q. Who did that work?

A. Why the gas company, Mr. Erickson, I believe there was the man.

Q. Who did that work?

A. The gas company did this work, their own men.

Q. Did the service come from the church and run down a trench outside of the pavement?

A. No sir.

Q. You are not very well posted about that are you?

A. Yes sir, I believe I am.

Q. Is it not a fact that the main to which they connected your service to which you refer to was not laid under the pavement at all, and that that was the reason that they did not have to open the pavement?

A. They crossed under the pavement 30 feet wide, without taking up a yard of paving, I know that to be a fact, I was right there on the ground at the time.

79 Q. Who did the work?

A. The gas companies' men.

Q. What men?

A. Do you want the name of the men?

Q. Yes sir, and when.

A. David Sall was the foreman on that work.

Q. When was that done?

A. It was done in about August of last year or possibly September.

Q. Is the church on your side of the street there?

A. Yes sir.

Q. In coming from the church would it be required to go under the pavement to reach you?

A. No sir it would not.

Q. It would not be required?

A. No sir.

Q. Do you know that they did not connect you from the church service?

A. I know positively they did not, yes sir.

Q. Now is there any other particular in which you think you might have erred in favor of the city? Here, I mean against the city.

A. No sir. There was no intention there to do that Mr. Rose.

Q. Oh there was no intention to err against the city's interests that is true is it.

A. I mean it either way. The object as far as I was concerned was to be fair in this matter as far as I knew.

Q. Now as a matter of fact, you would not vouch for your ability to cover every item and make a practical estimate here, on which the replacement could be actually done would you?

A. Well on every item I do not believe that I would say that I could.

80 Q. If you had to figure now after this cross-examination, you would yourself raise some items in the interest of fairness would you not and increase the cost?

A. I believe I would figure those services perhaps a little lower.

Q. A little higher or a little lower.

A. Put them down into the ground a little lower and increase the cost.

Mr. ROSE: The plaintiff moves to strike out all of the testimony of this witness because his examination develops that he is not experienced or acquainted with structural work of this kind and is not competent to give his opinion of the cost of such a construction; and also moves to strike out the exhibits number- 104 and 105 as it appears affirmatively that they are not made upon any accurate, or scientific or intelligent basis.

Mr. STEWART: On the part of the city, I desire to interpose an objection here to Counsel Rose and Strode, both appearing on behalf of the gas company, that the city council consented to Mr. Strode

appearing for the gas company on the representation that he would take the place of H. F. Rose, and we consider it unfair after the council were induced to pass that kind of a resolution for both of the attorneys to appear, and we object to attorney Strode appearing for the gas company for the reason that he appears of record as counsel for the city.

Redirect examination.

Examined by Mr. STEWART on behalf of the city.

Q. This matter you say of digging a trench six inches deeper, would add very little to the cost of the digging item, is that
81 your testimony?

A. It would not be very much of an item in dollars.

Q. Making any additional allowances, whatever they might be for that, what would you say as to your whole figures here, whether they are liberal enough to cover the, whether they are liberal enough to cover the fair and reasonable cost of the labor and material, that would go to replace those services and mains.

Mr. ROSE: The plaintiff objects for the reason that this witness is not qualified and incompetent, and no scientific or accurate basis upon which he can give an estimate.

A. I think these figures would cover the cost of new construction at the present time.

Q. You spoke about labor having been some time in the past two dollars a day, instead of \$1.75 as it is now for an 8 hour a day labor, when was that?

A. Why last year.

Q. Well previous to that time for a term of years say ten years what has the price of labor on that class run? Just state what it has been.

Mr. ROSE: The plaintiff objects as immaterial, and not confined to any reasonable time, and no foundation laid.

A. Why the past—take back ten or twelve years ago, you could get labor for,—get first class labor for a dollar and a half a day for eight hours. In the past six years I would say you would pay all the way from a dollar and seventy five cents to two dollars and twenty five cents.

Q. For digging?

82 A. Yes sir, common labor and that class of work.

Q. Do you know what the city is paying for labor on public work, now, common labor?

Mr. ROSE: The plaintiff objects as immaterial and not a proper criterion of what the general or prevailing rates of wages are.

A. The city pays \$1.75 for eight hours.

Q. For what class of labor?

Mr. ROSE: The plaintiff objects as immaterial, irrelevant and incompetent.

A. Well the same labor required to do this class of digging etc.
Q. Now I want to ask you as to whether the alleys of the city are as generally paved as the streets?

A. No sir.

Q. To what extent are the alleys paved?

Mr. ROSE: The plaintiff objects as immaterial.

Q. What section of the city?

A. It is principally down here in the heart of the city, in the business section.

Q. Generally through the city the allies are not paved, is that true?

A. Yes sir, that is true.

Witness excused.

Filed Jul- 6, 1908. A. D. Geo. H. Thummel, Clerk, by J. H. McClay, Deputy.

83 J. M. DEFFENBAUGH, being produced and duly sworn on behalf of the defendant testified as follows:

Examined by Mr. STEWART, on behalf of the defendant.

Q. Where do you reside?

A. In this city.

Q. How long have you lived in Lincoln?

A. About 22 years.

Q. What is your occupation at this time?

A. Contracting.

Q. What kind of contracting?

A. Sewer work, building sewers.

Q. What kind of a contractor did you say you was?

A. Building sewers at present or have been.

Q. In this city?

A. Yes sir.

Q. How long have you been engaged in that business?

A. Probably 6 or 7 months.

Q. What was your occupation previous to that time?

A. Water commissioner.

Q. In this city?

A. Yes sir.

Q. How long did you hold that position?

A. Over three years.

Q. And prior to that time what was your occupation?

A. In the water department.

Q. As an employee?

A. Yes sir, employee in the water department.

Q. What class of work did you do in the water department in your connection with it?

A. Well various—, all kinds of work mostly, mostly the construction of mains.

84 Q. And did that involve the digging of ditches and the laying of cast iron mains?

A. Yes sir.

Q. How did that construction differ in any way from the laying of gas mains?

A. I do not know that it differs in any way, only you would have to lay the pipe to drip.

Q. What class of pipe would you have to lay to drip?

A. All of it.

Q. The water pipe?

A. No sir the gas pipe.

Q. You say that would be the difference between gas construction—the laying of gas mains and water mains?

A. Yes sir, it would be the same as far as the laying of the pipe and labor.

Q. How long were you connected with the laying of water mains?

A. During my whole time in the department.

Q. About how many years was that?

A. About twenty years.

Q. And in that capacity were you required to employ labor, to buy material, and oversee this construction work?

A. I used to employ the labor, the city generally bought the material.

Q. Was it under your supervision that the purchases were made?

A. Yes sir it was, in that line.

Q. Are you acquainted at the present time with the price of such labor as is required for digging ditches and laying gas mains?

A. Well the same as water mains I am.

Q. And are you acquainted with the market value of gas mains and such material as enter into the construction of gas mains and services in this city?

A. Yes sir, in a general way I am.

Q. Have you made an estimate and can you state the reasonable cost in value of the labor and material that would be required for the replacement and construction of the gas mains and services of the Lincoln Gas & Electric Company, in this city?

A. In a general way I have.

Q. Have you that estimate?

A. Yes sir.

Q. Look at Exhibit 106, and state if that is your estimate?

A. That is my estimate.

Q. You may state if that is your estimate of the cost of replacing the mains and services of the Lincoln Gas & Electric Co. in this city?

A. It is.

Q. You may state whether or not that is a correct estimate and shows the reasonable cost?

Mr. ROSE: Plaintiff objects for the reason that the witness has not shown himself competent, and is not qualified to answer such a question. And as incompetent, irrelevant and immaterial.

A. Yes sir.

Mr. STEWART: Defendant offers in evidence Exhibit 106.

Mr. ROSE: Plaintiff objects for the reason that the witness has not shown any qualification and there is no basis for making the estimate, and the witness has not shown he is or has had any experience in engineering work of this character and he is not in any way qualified to state of the reasonable costs of it.

86 Q. I will ask you to state and give the items that go to make up your estimate?

Mr. ROSE: Plaintiff objects as immaterial irrelevant and incompetent and that the qualification of the witness is not established, showing his competency to answer the interrogatory.

A. We will take the item of 82,637 feet of 4 inch pipe. I base the actual cost of material and labor for that, at 52 cents to complete the job.

Q. Fifty two cents per running foot?

A. Yes sir.

Q. Now what Items make that?

Mr. ROSE: Plaintiff objects as immaterial irrelevant and incompetent, and the witness is not qualified to state.

A. I do not know as I have it exactly on that, but I will take it on the basis of the pipe. I figure the pipe at 19 pounds to the foot, the running foot, or \$33.00 per ton for the pipe.

Q. Is that wrought iron pipe?

A. It is for the four inch cast iron pipe.

Q. Take the first item there?

Mr. ROSE: Plaintiff objects as immaterial irrelevant and incompetent, and because the witness has not shown himself qualified to answer.

A. 20,700 and some feet of 2 inch pipe, that would be 21 cents a foot for the laying of the pipe, that is exclusive of the paving.

Q. Is that the wrought iron pipe?

A. Yes sir.

Q. How much did you figure that a foot?

A. Twenty one cents a foot.

87 Q. Is that the cost of the pipe?

A. The cost of the pipe, 11 6/10 cents, is the price I got.

Q. Per running foot?

A. Yes sir, 2 inch pipe.

Q. Is that the market value at this time?

Mr. ROSE: Plaintiff objects for the reason that the witness is not qualified to answer.

A. That is what it is quoted to me.

Mr. ROSE: Plaintiff moves to strike out the answer as not responsive to the question and as incompetent.

Q. Where did you get that quotation from?

Mr. ROSE: Plaintiff objects for the reason that the witness has not shown himself qualified to answer.

A. From the Western Supply Co.

Q. What is that?

Mr. ROSE: Plaintiff objects as hearsay, incompetent and as not proper direct examination.

A. A wholesale dealer in plumbers' supplies and pipe.

Q. That is what it is worth in the market here?

Mr. ROSE: Plaintiff objects as leading, incompetent, and because the witness is not qualified to state what the market price is.

A. That is what it is worth here in the market, what it is quoted to me.

Q. Go ahead with your statement?

Mr. ROSE: Plaintiff objects to the witness proceeding there being no interrogatory and the witness has not shown himself qualified to state as to the reasonable cost of the construction of work of this character.

88 A. I figure the cartage \$500.00 for the drayage and hauling of this two inch pipe. The extras they would have fitting along the line etc. I have figured that \$1,000 based as near as I could; and the labor at nine cents a running foot.

Q. For digging the trench?

A. Yes sir back filling, and laying of pipe.

Q. What sort of a trench?

A. Well this would take probably a 15 inch trench. 15 inch to 18 inch, and based on digging it 3½ feet deep for the mains.

Q. Well do you know from your experience as a contractor for digging a ditch and for back filling, whether that would cover the reasonable cost of the work, of laying the 2 inch pipe.

A. Yes sir it is.

Q. The next item is the four inch pipe?

Mr. ROSE: Plaintiff objects to the witness speaking about the cost of the next item for the reason that he is not qualified to answer.

A. I figure all the pipe, of course on the basis of 33 dollars per ton, which can be bought today for a little less, and I figured the lead at 5 cents, which I am informed can be bought today for 4 cents.

Q. Per pound?

A. Yes sir per pound, and the cartage at 50 cents per ton, I figured all of that at 50 cents per ton. I will take all of that. I will take Item by item. 82637 feet of pipe, I do not believe I have got the correct figures on this one item.

Q. On what?

A. On the four inch pipe. But it will figure the same if you will go into it, and figure it up at so much per foot, at so much per ton. I have figured \$33.00 per ton, F. O. B., Lincoln. Cartage 50 cents. The lead at 5 cents a pound. And the labor at fourteen cents per running foot.

89 Q. That is on 4 inch pipe?

A. Yes sir; I figured 3 cents for extras, something that generally goes in. We might not use it, but for instance there might be a drip or something like that to go into the mains.

Q. Three cents extra per foot you mean?

A. Yes sir. I am not familiar with where they are located and I could not tell, but there might be something special to put in that line possibly.

Q. Did you make any different figures on the 6 inch pipe?

A. The 6 inch pipe I figured at 2 cents more for the laying. They are a little heavier to handle.

Q. In any other respects how?

A. It would be the same. The eight inch pipe I figure the labor at 18 cents, on account of it being a little heavier to handle the pipe.

Q. What figures have you on the ten inch?

A. On the ten inch I have 22 cents for the labor.

Q. And the 12 inch?

A. Twenty five cents for the 12 inch.

Q. And the 16 inch?

A. Thirty five cents for the 16 inch, and the 20 inch 40 cents, for the labor. Of course the 20 inch pipe can be bought for—any pipe over six inches can be bought for probably one dollars less than the smaller size pipe, but I figured on the basis of the smaller pipe.

Q. This is 33 dollars a ton.

A. Yes sir. Pipe varies so much it is hard to keep track of it.

Q. Now from your experience in laying pipe, would you say that these figures that you have given would be adequate to cover the cost of reconstruction that you have testified to?

A. Yes sir.

90 Q. Today?

A. Yes sir.

Q. And how would it have been in the past year?

Mr. ROSE: Plaintiff objects for the reason that the witness has not qualified himself to answer.

A. Sometimes it costs more, and other times it costs less.

Q. Have you been familiar with the price of labor and material such as enter into this class of construction in this city for the past years?

A. I have for the past 20 years, I could not recall them now.

Q. And the cost you say has varied some?

A. Yes sir, very considerably, from \$18.00 to \$40.00, I think.

Q. That is you are speaking now about the cost of mains per ton?

A. Cost per ton.

Q. And how about the cost of labor?

A. The cost of labor has varied in probably the same proportion.

Q. Has the cost of labor ever been higher than it was this last year?

A. No sir.

Q. That was extraordinarily high.

A. Yes sir, extraordinarily high this year.

Q. Do you know how deep on the average the gas company lay their mains?

A. No sir, I don't. Some of them are very shallow, and some of them are deep, but perhaps they would average 3 feet. I should

judge, wherever we ran across them in the line of work we have done.

Q. Do you run across them frequently?

A. Yes sir.

Q. That is in laying what?

A. In laying the water mains and sewer pipe.

91 Q. And how about their service pipe about how deep are they laid?

A. Well they vary too considerably.

Q. What would — say was the average that they have their service pipe laid if you know?

Mr. ROSE: Plaintiff objects for the reason that the witness is not qualified to answer.

A. That is hard to tell but I should say about 3 feet.

Mr. ROSE: Plaintiff moves to strike out answer for the reason that the witness has absolutely no knowledge on the subject and does not pretend to have.

Q. What is the price of labor at the present time, such as would be employed in this class of construction if you know?

A. Mr. ROSE: Plaintiff objects for the reason that the witness has not shown himself qualified to answer and determine what is required in this class of construction work.

A. I can get all the labor I want for 20 cents an hour.

Q. And is that the ruling price for that class of labor?

Mr. ROSE: Plaintiff objects as immaterial.

A. Well the ruling price is the price you can get it for.

Q. But you can get it for 20 cents an hour?

17 1/2 A. Yes sir, you can get it for less than that, you can get it for cents an hour.

Q. How has it been in this past year?

A. Mr. ROSE: Plaintiff objects for the reason that the witness is not qualified to answer.

25 A. The last year the labor has been higher. Last fall, from 20 to cents was the ruling price.

Q. How was it prior to that time?

92 A. Mr. ROSE: Plaintiff objects for the reason that the witness is not qualified to answer.

A. Twelve and one half cents, to fifteen cents and seventeen and one half cents.

Q. That was for diggers?

A. Yes sir.

Q. And what about the other labor that is required in this construction work, in making the joints, does that require any special skill?

A. Mr. ROSE: Plaintiff objects as incompetent and for the reason that the witness is not qualified to speak, and has had no experience in this class of work or in contracting or engineering work.

A. Why I don't know as it does, only screwing pipe together.

Q. Are these connections made in gas mains similar to the connections made in water mains, do you know?

A. Yes sir.

Q. What is the nature?

A. I understand—what is it you mean by connection now?

Q. Where the pipes are joined together?

A. The pipes are joined together the same. Lead joints.

Q. How are they joined?

A. They are laid, yarned, and calked and then you pour your lead in and that causes the joint.

Q. Now about your services what estimate do you make on the cost of those?

Mr. ROSE: Plaintiff objects for the reason that the witness has not shown himself qualified to testify as to the cost of service and has no personal knowledge on this subject.

A. The cost is nine dollars a piece on the services.

Q. What items make that up?

93 A. Mr. ROSE: Plaintiff objects for the reason that the witness is not qualified as an expert and his opinion is not entitled to be received in evidence.

A. I figured the service from the best opinion I got at 50 cents a service, that is to the lot line from the center of the street, and 50 feet of one and one quarter inch pipe at seven and one quarter cents a foot. I figure one gas cock and stop box.

Q. At what?

A. The stop box would be 72 cents and the inch and a quarter cock at 78 cents, I believe that is the price they quoted me, and the labor.

Q. What do you allow for the labor?

A. I allow three dollars for the labor, 50 cents for the cartage 37 cents I allow for extras. You want a nipple and an L when you make the connection, and a tap most generally on a two inch pipe. I made an estimate on the extras on a 2 inch pipe of that much.

Q. From your knowledge and experience of the reasonable value of these items that enter into this, would you say that this is sufficient to cover the cost?

Mr. ROSE: The plaintiff objects because the witness is not qualified to speak and has no knowledge of the requirements or the costs of this business.

A. Yes sir.

Q. Now on the taking up and the replacing pavement, have you made an estimate on that?

A. Yes sir, I have an estimate on the paving.

Q. First I will ask you what sort of a ditch you figure on for these services?

A. Well, circumstances and conditions would make considerable difference. That would have considerable to do with the laying of the pipe.

Mr. ROSE: Plaintiff moves to strike out the answer as not responsive.

94 Q. I am asking you what depth of a ditch you figured on?

A. I figured three feet.

Q. Are you acquainted with the depth that the gas company lay its service pipes in this city?

A. No sir, but I do not think it would average more than two and a half feet.

Mr. ROSE: Plaintiff moves to strike out the answer as being the conclusion of the witness.

Q. Don't you know?

A. I don't know exactly what depth they are no sir.

Q. Have you ever examined them or ever seen them?

A. Yes sir.

Q. Any considerable number of them?

A. Yes sir.

Q. How and under what circumstances?

A. When we were doing construction.

Q. What in your judgment would be the average depth from your observation?

Mr. ROSE: Plaintiff objects for the reason that the witness is not qualified. It is a mere general opinion like any one can make after having any ground facts upon which to estimate.

A. I do not think they would average over two and one half feet.

Q. Now we will go to the paving and the wooden blocks. I see you figure there are 11,300 feet of mains. You figure 33 cents, what items enter into that. What kind of mains is that.

Mr. ROSE: Plaintiff objects for the reason that the witness is not qualified to answer.

A. This would be an average from a two inch, up to, I believe, a ten inch, under the wooden blocks.

Q. What goes into that cost?

65 Mr. ROSE: Plaintiff objects as incompetent, and because the witness himself has said this is only an average just a general opinion.

A. The item of labor replacing pavings and also the asphaltum, that is in the asphaltum, and in the——

Q. I am talking now about the wooden blocks?

A. We have no wooden blocks in this city.

Q. You have some figures here on wooden blocks?

A. Yes sir, that would be replacing wooden blocks provided we had them.

Q. You took the figures of Mr. Malone?

A. Yes sir the figures you gave me.

Q. As a matter of fact you say there is no wooden blocks in this city?

A. I don't know of any now.

Q. And you figured on 11,300 lineal feet of mains under wooden block paving?

A. Yes sir.

Q. And how many services under the wooden blocks?

A. 72.

Q. And you figured them at what?

A. Twenty two cents.

Q. And what labor entered into that?

Mr. ROSE: Plaintiff objects as incompetent, and because the witness himself has said this is only an average just a general opinion.

A. I wish to make a statement on this in regard to there being no asphaltum in this, and this would be replacing taking up the blocks provided they were there, and replacing them, also on concrete and replacing it.

Q. First on these wooden blocks, what width of a ditch did you figure on digging and what depth.

96 A. Well it would be 18 inches for the mains, and 12 inches at the top, opening up the pavement for the surface, opening it, opening up the pavement 12 inches.

Q. How about working in a 12 inch ditch. Have you figured that wide enough?

A. You can work in a 12 inch ditch providing you do not go down any deeper than you do for a service.

Q. Now on two course brick?

A. Two course brick I figured at 6 cents a foot with extra labor on that.

Q. And do you figure on replacing the same material?

A. Yes sir. When you take that out why it helps on the service of digging. You have nearly a foot that you do not have to excavate.

Q. And taking that into consideration and the fact that you replaced the material, you figured that 6 cents per lineal foot would be *be* a reasonable price for that?

Mr. ROSE: Plaintiff objects as leading, and for the reason that the witness is not qualified to answer.

A. Yes sir.

Q. And on the service under two course brick you figure the same do you?

Mr. ROSE: Plaintiff objects as leading and the witness is not qualified to answer.

A. Yes sir, I figure the same.

Q. Now go to the asphalt. You have on this Exhibit "106" given 49100 lineal feet of mains, and you figure that at what?

A. Fifty eight and one third cents.

Q. Now what size trench do you figure that?

A. I figure that 18 inches.

Q. And what makes up that cost?

97 Mr. ROSE: Plaintiff objects for the reason that the witness is not qualified to answer, and incompetent.

A. Labor and material.

Q. Do you estimate on saving any of that material, that is taken out of the asphaltum street?

Mr. ROSE: Plaintiff objects as incompetent, and for the reason that the witness is not qualified to answer.

A. Yes sir.

Q. What do you save?

A. Why I would do considerable boring there.

Q. I mean about material?

A. No sir. I do not mean any material on this or any material at all, that which is replaced with new material.

Q. What was you going to say about boring, have you made any allowance for that?

A. In a general way—no not in this I have not.

Q. Now you have 17080 lineal feet of services under asphaltum?

A. Yes sir.

Q. That you figure at 38 cents?

A. Yes sir.

Q. What size trench do you figure on that?

Mr. ROSE: Plaintiff objects as incompetent, and the witness is not qualified to answer.

A. In opening a trench that is on asphalt, about 12 inches wide. For the shallow ditch that we would put in.

Q. Would that have to be enlarged at any point?

A. Well you might batter it when you get a little deeper ditch to get room, if you had to work in the ditch or at the main.

Q. Where you make the connection?

A. Yes sir.

98 Q. Have you had any actual experience in this work, of taking up pavement, on any of this class and laying it back?

A. Yes sir.

Q. In what way?

A. As far as the water works are concerned laying the mains and laying the sewers.

Q. And are these figures that you have made taken from your actual experience in this class of work?

Mr. ROSE: Plaintiff objects as incompetent and the witness is not qualified to answer.

A. Yes sir in a general way they are.

Q. And what do you say as to whether or not that you have given, making up the cost of the replacement of all of these mains and services, and the taking up and replacing the pavement, being sufficient to cover the necessary cost of doing the work, the reasonable cost of doing that work?

Mr. ROSE: Plaintiff objects because the witness is not qualified to answer and no foundation laid.

A. Taking it as a whole that would be a reasonable cost for doing all of this work.

Q. Have you allowed anything for superintending or profits?

A. Nothing for profits.

Q. How about superintending?

A. Well superintending can be done under this estimate. I have averaged on all the work, I have put in enough to cover the superintending, or aimed to.

Q. You spoke now that something might be saved by boring. Explain what you had in mind?

A. Why in the services you might save considerable in boring. Suppose you bored 5 feet on each service, after you had the trench open, or six feet or eight feet. The condition would tell you what to do.

99 Q. In that way you would save taking up pavement?

A. You would save all of the paving and all of the trenching.

Q. I understand you then, your figures are based on the actual taking up of all the pavement and replacing it over mains and services?

A. Yes sir, as far as the figures I have.

Q. Will you state what observation in your 20 years' experience you have made, in regard to the action of the soil on the gas mains in this city? Whether or not there is anything that tends to deleteriously effect them?

Mr. ROSE: Plaintiff objects because the witness is not qualified as a chemist or is shown to have had actual experience.

A. My observation on water pipe is that some places it is effected by electrolysis.

Q. By electrolysis?

A. Yes sir.

Q. Under what circumstances and in what places?

A. Well along the car track, and generally along and around the power house.

Q. Has there been any considerable amount of pipe effected that way during your 20 years of experience?

A. Not very much.

Mr. ROSE: The plaintiff objects as immaterial how it has effected the water mains and not a subject that is within the range of inquiry in this law suit.

Q. Well is there any different between gas mains and water mains in the material that enter into that?

A. The only difference is that the water mains are coated with a composition of asphalt dope and the gas mains are not unless specially ordered.

Q. And that is the only difference?

100 A. Yes sir.

Q. To what extent is this electrolysis observed by you, to any considerable amount?

Mr. ROSE: Plaintiff objects as immaterial and because witness is not qualified, and because the conditions are shown to be at variance, the contents of the pipe are at variance, and are at variance in respect to their being electric conductors, and no similarity of condition, and it is merely immaterial how the water mains are affected by the action of electrolysis, or electricity.

A. I found considerable around the power plant, and near the street car lines, under them where they cross.

Q. When was that?

A. Well that has been several years ago.

Q. Has there been anything done to help that?

A. They have been bonded some, down by the power house.

Q. How is that done?

A. To make a connection and tie a wire around the main and also back into the power plant.

Q. Have you seen any mains effected that way lately?

Mr. ROSE: Plaintiff objects as incompetent and not relevant, and not an issue here, and not forming any basis under the issues.

A. No sir, I have not lately.

Q. Have you seen anything of that kind in the last three or four or five years?

Mr. ROSE: Plaintiff objects as immaterial irrelevant and incompetent.

A. Yes sir.

Q. Do you know when they bonded them?

Mr. ROSE: Plaintiff objects as immaterial irrelevant and incompetent and no basis for any estimate in this case.

A. Oh, possibly 10 years ago, I cannot remember, I have forgotten how long ago it was when they first noticed the trouble.

Q. Did you ever take out any mains lately on that account?

Mr. ROSE: Plaintiff objects as immaterial.

A. No sir.

Q. Has it been so bad that you have had to take out any mains?

Mr. ROSE: Plaintiff objects as immaterial.

A. No sir it has not. We have made connections at the very dangerous points at the power house. I believe that some of the gas mains and water mains are bonded too.

Mr. ROSE: Plaintiff moves to strike out as voluntary and immaterial.

Q. Have you observed any bad effects from electrolysis of late years at any place except near the power house?

Mr. ROSE: Plaintiff objects as immaterial irrelevant and incompetent.

A. No sir, I have not—that we traced directly to it, but they have laid lots of it to it where the services gave out frequently.

Q. Laid it to what?

A. Electrolysis.

Q. What kind of services?

Mr. ROSE: Plaintiff objects as immaterial.

A. Water services.

Q. Have you observed as to whether the alkali soils has any detrimental effect on the water pipes or services.

A. It is on the services. I think we found that they only last a few years, and other places it lasts quite a good many years.

Q. None on the mains?

A. No sir.

102 Cross-examination.

Examined by Mr. ROSE on behalf of the plaintiff:

Q. Now you were what is called a tapper in the water department here for a number of years?

A. Yes sir.

Q. What are the duties of a tapper?

A. The duties of the tapper are to make taps to turn on and off water in a general way.

Q. And you say you were connected with the water department for about 20 years?

A. Yes sir.

Q. And you were connected there in the department as a laborer?

A. I was in the beginning of the department, I commenced as a laborer and worked up.

Q. How long did you remain in the service as a laborer up to what year?

A. If you will tell me what year Mr. Wier was elected mayor, I can tell.

Q. About 1891?

A. Yes sir.

Q. And what wages did you get there as a common laborer there in the water department?

A. From \$1.75 to \$2.50. I began at \$1.75.

Q. And then when did you become a tapper?

A. I think it was about 1898.

Q. And what were your duties between 1891 and 1898?

A. Foreman of construction.

Q. What wages did you get as foreman there?

A. \$65.00.

Q. \$65.00 a month?

A. Yes sir.

103 Q. What wages did you get as a tapper?

A. \$70.00.

Q. And during the term of this service with the city water department you worked under the supervision of the water commissioner?

A. Yes sir.

Q. Most of the time the water commissioners have been appointed by the mayor until recent years?

A. Until recent years yes sir.

Q. And who were the water commissioners under whom you served?

A. Mr. Lyman, Mr. Bullock, Mr. Percival, Mr. Byers, Mr. Tyler.

Q. Now what were the highest wages you have received in the department up to the time you were elected water commissioner?

A. \$75.00.

Q. \$75.00 a month?

A. Yes sir.

Q. You were never an accountant or an engineer?

A. No sir.

Q. You have never had any education or experience or any extended experience either as an engineer or as an accountant?

A. No sir.

Q. Did you make these computations that are shown on this sheet Exhibit Number "106"?

A. Yes sir.

Q. And those computations show the best calculations you can make in calculations do they?

A. Yes sir.

Q. And you cannot extend these items any more accurately than they appear to be extended upon this sheet?

A. If I had the contract to do this work, perhaps I could.

Q. You would not even speak for the accuracy of the extent of these items?

A. Yes sir, I can.

Q. Is the item of \$142,866.54 a correct addition of the items in the column above?

A. Perhaps it will vary some in the additions, something like that a few cents.

Q. A correct addition cannot vary in any case can it?

A. No sir.

Q. There is only one correct result of an addition?

A. That is all. We are all liable to make mistakes though.

Q. You spent a great deal of time on this table though did you not?

A. Oh, I don't know.

Q. Did you compile the table of this, or get somebody else to compile it?

A. I compiled it.

Q. What has been the extent of your literary education or education in mathematics or engineering?

A. Not any for engineering?

Q. And very limited in English and literature, you never went to school very much did you?

A. Well I used to think I had a good common school education.

Q. Just a common school education?

A. Yes sir.

Q. Well I think probably that is right. I just wanted to see whether you had any technical education in these things.

A. No sir, I have not.

Q. When did you become water commissioner?

A. April 1904.

Q. And when did you retire from the water commissioner's office?

A. May 1907.

Q. *During the term that you were water commissions office?*

A. *May 1907.*

Q. During the term that you were water commissioner, three years approximately how many miles of water mains did you
105 construct in that department?

A. I cannot say.

Q. Did you construct a mile in the three years?

A. Yes, sir, and a good many more than that.

Q. Well, how many miles.

A. Well sir, I cannot say.

Q. Did you construct two miles in the three years?

A. Yes sir, more than 5 miles I think.

Q. Well you would not say definitely that it was more than 5 miles?

A. No sir. That would be more than one and one third miles a year on an average.

Q. How many men did you have in that department during that time?

A. I could not say they varied at different times.

Q. Who was the accountant in that office at the time

A. Mr. Traxell. Bookkeeper we called him.

Q. Now since you retired from the water commissioner's office you have been doing some contraction have you?

A. Yes sir.

— What is the largest contract you ever took, what is the largest compensation that you ever contracted for in one contract?

A. Possibly \$1500 *dollars*.

Q. You never executed a contract in your life in excess of \$1500?

A. No sir.

Q. Well what was the character of that contract?

A. Building sewer, sanitary sewer.

Q. Who was the owner?

A. Well it was done under the supervision of the city of Lincoln.

Q. Well did you contract for work for \$1500 with the city of
Lincoln?

A. I contracted with the city of Lincoln.

106 Q. And what was the sanitary sewer you contracted for and in what locality?

A. Mostly in the 6th ward, I think all in the 6th ward.

Q. In the sewer work you did not have to open the pavement?

A. Yes sir.

Q. Where did you cross the pavement?

A. On Sumner Streets and 25th and on the alley between 24th and 25th on Sumner.

Q. Oh, then you crossed two paved streets in that work?

A. Yes sir.

Q. And they both were asphaltum were they?

A. Yes sir.

Q. And he closed the openings, and replaced the pavement, you or the city?

A. The city charged me up for the replacing of the asphaltum, and I closed the pavement—that is the concrete.

Q. You closed the concrete?

A. Yes sir.

Q. Did you keep any accurate account of the labor employed in cutting across the streets?

A. I did, yes sir.

Q. Where did you say the streets were cut?

A. 25th and Sumner.

Q. Now the 25th and Sumner Street cut, how many men did you employ in cutting the asphaltum there?

A. I had one man.

Q. How many different stratas did he cut through?

A. Cut through the asphaltum, the binder, and the concrete.

Q. And that entire structure composing the asphaltum, was how thick?

A. I do not remember now. I think the concrete was 4 inches and the binder I do not remember, I believe 2 inches. Asphaltum two I think.

107 Q. You think there were just two inches of binders, and two inches of asphaltum?

A. I think so. I am not positive.

Q. Making about ten inches?

A. Yes sir.

Q. Did he open it with a pick?

A. Yes sir, with a pick and an ax.

Q. He used an ax to do the cutting, to cut the line through the asphalt, top dressing?

A. Yes sir, through the top.

Q. He could not use the ax in the binder or in the concrete?

A. He used the pick.

Q. Now you say you kept track of his time, how much did it take to cut through across the street?

A. In cutting across pick a hole 8 feet long by 2 feet wide, it took just three hours to cut through.

Q. Did you not cut clear across the street?

A. No sir, we tunneled. He cut two holes in the pavement, and tunneled the balance.

Q. And how much did you pay him an hour?

A. I paid him 25 cents an hour.

Q. That was the time that it took him to cut the surface?

A. Just cut through the paving. The paving and concrete down to the dirt.

Q. Now did you get that from actual memory or how?

A. I took notes at the time, and from actual memory, I noted that at the time.

Q. Did you really note it, or don't you want to admit you did not note it. Who was the man that did that, tell us the name of the man, who did that in three hours, the man to whom you paid the 25 cents an hour.

A. I will call his name to memory in a little while probably.

Q. Now in this examination that I have taken you over,
108 we have *we have* shown your occupation in the last 20 years, have we not?

A. Yes sir.

Q. How many contracts have you — with the city of Lincoln?

A. I believe I have had eight.

Q. And the largest one was \$1500?

A. Yes sir in the neighborhood of \$1500.

Q. Was that as large as \$1500 or less than that?

A. Well I think probably it was a little less, I cannot state just now what it was?

Q. And have you had any other contracts but these that you give from the city of Lincoln?

A. No, sir,—Yes I have too, sewer and water.

Q. Where?

A. Out in east Lincoln, or southeast Lincoln.

Q. For whom?

A. L. J. Dunn is one, and Dr. Orr is another one.

Q. L. J. Dunn was, L. J. Dunn's was a sewer to his private residence?

A. Water.

Q. Water to his private residence?

A. Yes sir.

Q. What was Mr. Orr's?

A. Sewer.

Q. And how extensive a contract was that with Mr. Orrs?

A. Oh, a small contract.

Q. About a hundred dollars?

A. Less than a hundred dollars.

Q. Was it more or less than a hundred dollars?

A. Less than a hundred dollars.

Q. And this is the extent of your experience in contracting?

A. Yes sir.

Q. How far did you run your sewer from to Mr. Orr's, or did you just tap the sewer there?

109 A. I do not remember. I ran from the house down the alley, and down the alley for perhaps two or three hundred feet.

Q. You have not then at any time been a very extensive employer or labor yourself?

A. Yes sir, in the last six months I have.

Q. How many men have you had continuously or on the average in the last 6 months?

A. Oh, I suppose a dozen, and sometimes as many as thirty.

Q. Say on the average?

A. I could not tell you.

Q. Would you average two men steadily.

A. I said I would average ten I think.

Q. I thought you said you could not tell?

A. I cannot tell.

Q. Have you at any one time had as many as ten men?

A. Yes sir, I think I have had as many as thirty men at times.

Q. For how long a period of time?

A. A few times. In my business and work we take up and lay off men as we need them.

Q. Your work is not continuous?

A. No sir.

Q. You get a contract, and you go and complete it as speedily as possible?

A. It depends on whether I have another contract following how many men I employ.

Q. Did you have any assistance in making out this tabulation?

A. Only the asphaltum.

Q. Who assisted you on that?

A. Mr. Bing; we went over it after it had been made out.

Q. Did you compare with each other the cost of service?

A. Yes sir.

110 Q. And the labor for service?

A. Yes sir.

Q. And you estimate a lower sum by 35 cents than he did?

A. Well I don't know as to that, I do not know as we do correspond. I did not change my estimate any.

Q. You estimated three dollars for a trench three feet deep, and Mr. Bing seems to have estimated \$3.35 for a trench 2½ feet deep. Now do you know that you estimate three dollars for labor there?

A. I do yes sir.

Q. Now in giving all these details you had no details in your hand or memorandum to guide you when you were answering them had you, and nothing to guide you except Exhibit "103"?

A. I have got a memorandum—

Q. No in answering Mr. Steward, is it not a fact that you made no reference to any details and used only to refresh your recollection, Exhibit "103"?

A. I have in my pocket a pocket memorandum.

Q. Please answer my question?

A. I did make reference.

Q. Here while you were testifying?

A. Yes sir.

Q. Do you mean to say you had a memorandum of details that you actually pulled out and used during your testimony?

A. Yes sir.

Q. You were present here during all of Mr. Bing's testimony?

A. Yes sir.

Q. Now you were employed by the city attorney to make this estimate were you for a price?

A. No price stated and nothing said about a price.

Q. You just did it then as a pure gratuity?

111 A. He asked me to do it.

Q. Did you do it for a gratuity or for a compensation?

A. I expect something for it.

Q. Nothing said about the price?

A. No sir.

Q. But you are performing a service as a paid servant of the city attorney?

A. I hope so.

Q. Now one thing more, you say you got quotations on pipe from the Western Supply Company in this city?

A. Yes sir.

Q. I want to ask you if it is not true that you cannot get a quotation on 4 inch cast iron pipe?

A. Not on the cast iron pipe I don't.

Q. Four inch cast iron pipe from the Western Supply Company for a smaller price than 22 dollars in the city of Lincoln?

A. I did not get it on the 4 inch pipe, I had other means to get that quotation.

Q. My recollection was that you said you got your quotation from the Western Supply Company?

A. On a two inch pipe would—on gas cocks, and stop box and 1½ inch pipe.

Q. Did you not get a higher estimate from the Western Supply Company for 4 inch cast iron pipe, which you declined to use?

A. I certainly did, because I could buy it cheaper.

Q. What quotation did you get in Lincoln to-day for 4 inch cast iron pipe, delivered here?

A. I think I could get a factory.—

Q. No, what quotation did you get?

A. I did not get any quotation delivered here.

Q. As a matter of fact the quotations on 4 inch cast iron pipe are almost, if not quite, 35% higher today than they were in 1905 and 1906, were they not?

112 A. I do not think it so at all—Oh 1905 and 1906?

Q. Yes sir.

A. They are higher, they are considerable higher.

Q. Can six inch cast iron pipe be purchased in Lincoln to-day for a smaller price per ton than \$40.00?

A. Yes sir.

Q. From what dealer in Lincoln?

A. I did not say anything about Lincoln.

Q. I asked you if it could be purchased in Lincoln?

A. No sir, I do not know as it can. I am not posted in Lincoln I am posted on the factory, plus freight.

By Mr. STEWART:

Q. Delivered in Lincoln?

A. Factory plus freight delivered F. O. B. Lincoln.

By Mr. ROSE:

Q. Now you speak of electrolysis, are you an electrician?

A. No sir.

Q. Have you ever made a study of the action of electricity upon cast iron and wrought iron?

A. Yes sir, I have read on it considerable, but not far enough to be an expert on it.

Q. What do you read of that subject?

A. A good many papers.

Q. Just isolated papers from time to time. Newspaper articles where the subject of electrolysis was discussed?

A. No sir, scientific papers.

Q. What scientific papers have you read on that subject?

A. I do not know as I can tell, but quite a good many of them and discussions in different places.

Q. What is the best method of guarding against electrolysis?

A. Mr. STEWART: City objects as immaterial irrelevant and —
112½ A. I think there would be considerable money to the man that would tell how to prevent that.

Q. That is your answer is it?

A. Yes sir.

Q. Then you do not know of any way to prevent it?

A. Not to entirely prevent it.

Q. You do not pretend to say that there have not been extensive lines of gas mains that were necessarily taken up because of electrolysis in this city, by the gas company do you?

A. I do not know as they were here.

Q. You do not know whether they were or whether they were not?

A. No sir, I do not.

Q. And, so far as you know, the actual experience given here by these officers of having to remove pipe or mains on account of electrolysis is true?

Mr. STEWART: The defendant objects for the reason that it is incompetent, immaterial and irrelevant, not proper cross examination and for the reason further that the testimony given by the officers of the gas company has been to the effect that very little has been taken up on account of it.

Question withdrawn.

113 Q. Now you say the water pipe as it is manufactured has a solution on it?

A. Yes sir, it is dipped in a solution.

Q. And the purpose of that is to protect the pipe from electrolysis?

A. No sir, not electrolysis. It was done before they ever knew anything about electrolysis.

Q. Well the effect of the solution is to protect the pipe?

A. To protect the pipe from the soil.

Q. Both from the soil and electrolysis is it not?

A. I do not consider it is from electrolysis.

Q. The coating is not an electric conductor is it?

A. No sir.

Q. It affords in a measure, so far as you know, a sort of an installation does it?

- A. No sir, so far as I know, it does not.
- Q. You know the water pipes carry water don't they?
- A. I believe that is what they are laid for.
- Q. As an actual fact, as far as your experience and observation goes, those water pipes of the city are all filled with water?
- A. Most of the time, yes sir.
- Q. Is water a conductor of electricity?
- A. Yes sir, I think it is.
- Q. And the gas pipes instead of carrying water, carry gas?
- A. Yes sir.
- 114 Q. Is gas a conductor of electricity?
- A. I don't know.
- Q. Or as good a conductor as water?
- A. I don't know.
- Q. Well do you know which mains, the gas or the water, are the most liable to electrolysis?
- A. I don't know.
- Q. Or to be effected by electrolysis.
- A. I don't know.
- Q. You do not know whether the experience with the water mains furnished any criterion at all for the gas mains, in that respect?
- A. No sir.
- Q. Nor you really don't pretend to know?
- A. I don't pretend to know.
- Q. Where did you get your \$33.00 price for cast iron pipe?
- A. Out of a trade journal. The Municipal and Engineering News. I have several quotations, they have it every week, they give quotations every week.
- Q. Out of the trade journal?
- A. The Municipal Engineering & Trades Journal is one of them.
- Q. That is a journal devoted to the interests of municipal ownership?
- A. Yes sir, and all subjects—not municipal ownership at all.
- Q. Who publishes that paper?
- A. It is published in New York by—I forget now.
- Q. Is the rate that you saw quoted on 4 inch pipe the same as they quoted on 20 inch pipe?
- A. No sir, it is not. Twenty inch pipe I think is two dollars less.
- Q. And you just gave a price of \$33.00 per ton for all sizes did you?
- 115 A. I did to make safe, and I gave the gas company the benefit of the doubt.
- Q. Well do you mean to say that today you can get cast iron pipe of a four inch size, delivered in Lincoln for \$33.00?
- A. Yes sir, I think we can. I do not know what you can do to-day. It fluctuates considerably, the price of pipe.
- Q. Could you in the last six months?
- A. Yes sir.
- Q. Where from?
- A. From Birmingham. The United States Cast Iron Pipe Company, and the American Pipe Company.

Q. Of Birmingham?

A. Yes sir.

Q. State of Alabama?

A. Yes sir.

Q. Now can you produce any quotation you have from that company within the last 6 months?

A. I think I can.

Q. Please produce it?

A. I had the quotation the other day but I don't know what have done with it.

Q. Do you know what the car rate from Birmingham here is?

A. It used to be \$5.10 per ton, that is what we always paid. The general thing that we paid when we bought our pipe.

Q. Did you add that to your quotation?

A. Yes sir.

Q. And still keep within the \$33.00?

A. Yes sir. I think it was as low as \$24.00 for 20 inch, and \$26.00 was the highest with one dollar extra for gas pipe.

Q. Now I will ask you another thing. Why is it that today you are willing to use the Western Supply Company's quotations on wrought iron pipe, and small pipe, and are not willing to use their quotation on wrought iron pipe when you find that the cast iron pipe has advanced \$9.00?

A. I don't know as it has.

Q. The reason that you used the quotation of the Western Supply Company on wrought iron pipe, and not on cast iron pipe, was because their quotation today on wrought iron pipe was \$9.00 higher than your estimate here, that was the reason was it not?

A. On cast iron pipe?

Q. Yes sir.

A. When I am in business I will but where I can buy the cheapest.

Q. Was that the reason that you would not use their quotation?

A. A would not use their quotation on cast iron pipe because I think I can buy it as cheap as they can.

Q. You think they would make that fluctuation here today do you, of \$9.00?

A. I don't know whether they did.

Q. Don't you think they know where to buy as low as you could?

A. They ought to; they are in the business. I think I can get the market quotation as low as they can on cast iron pipe?

Q. You think so with your standing as a contractor here?

A. Yes sir, with my standing and knowledge.

Q. And the size of your business and theirs will put you on an equal footing with them?

A. And my acquaintance with pipe men.

Q. You deal quite exclusively with the Western Supply Company, don't you?

A. I do at present, yes sir.

Q. If you can get a better price on the cast iron pipe than they can give you, why can't you on the wrought iron?

A. I took their price that they quoted to me, I asked them for the price and it took two or three days for them to look up
117 the price.

Q. You also asked for the wrought iron pipe price?

A. Yes sir, but they quoted me on the cast iron, and the quotation was that.

Q. Do you remember now the name of the man that cut your asphaltum out there at 24th and Sumner in three hours?

A. No sir, but I will think of it in a little while.

Witness excused for the present.

It being now 5 o'clock an adjournment was taken until 9 o'clock

A. M. tomorrow morning, May 8th.

118 9.00 O'CLOCK A. M., *May 8th*, 1908.

The parties met pursuant to adjournment and the following proceedings were had and done:

JAMES M. DEFFENBAUGH, recalled on behalf of the defendant, testified as follows:

Examined by Mr. STEWART on behalf of the defendant:

Q. Have you the name this morning of the working man that made the cut in the asphaltum pavement in Sumner Street?

A. Yes sir.

Q. What is his name?

A. Frank Watson.

Q. Was there any explanation you wished to make in regard to your testimony relative to electrolysis in the city water mains?

A. I found electrolysis around the power house mostly. There seems to be a misunderstanding and of course I could not tell when that took place, but the indications of it you can find at any time.

Q. And that is the only place that you have discovered any of late years?

A. I have discovered it on the 9th street mains.

Q. Whereabouts?

A. Along about the power house and 10th street.

Q. But you could not tell when the electrolysis occurred?

A. No sir, I could not tell when, but you can find trace of it now.

Cross-examination.

Examined by Mr. ROSE on behalf of the plaintiff:

Q. Well what is electrolysis, and how are you able to distinguish and identify it. What effect does it have upon—what is the
119 effect of it upon iron, of cast iron pipe?

A. Well it will pit it.

Q. That is to say where it leaves the main and crosses over to a conductor?

A. Where it leaves the main it will pit the pipe?

Q. Make a hole in it.

A. Yes sir.

Q. Is the iron crystal-ized under action of the electricity?

A. Well it forms a crust and under that crust you will find it pitted.

Q. Electricity then eats the iron away, decomposes the iron does it?

A. I don't know about that, I am not an expert on electricity although I know they claim where we find the pipe pitted, they claim it is electrolysis that does it.

Redirect examination.

Examined by Mr. STEWART on behalf of the defendant:

Q. Did you get the quotations on the gas pipe that Mr. Rose called for?

A. I did.

Q. Let me see them will you?

A. Here they are.

Q. These Exhibits, "107" and "108," what are they taken from?

A. Taken from the Municipal Journal & Engineering News.

Q. Is that a Trade Journal?

A. Yes sir—well devoted to trade journal, and municipal and private contracts that they can get trace of?

Q. Have you got the papers that these were clipped from?

A. I think I have, I cannot say I have.

Q. If you have I will ask you to bring them in?

A. I will if I can find them.

120 Q. And what are the dates of those clippings?

A. I think one is April 12th and the other a week pre-

vious.

Q. This year?

A. Yes sir, 1908.

Q. Do you know whether it is a reliable Journal?

A. Yes sir, I think it is.

Q. Is it generally circulated amongst contractors and trades people?

A. Yes sir.

Mr. STEWART: Defendant offers in evidence Exhibits 107 and 108.

Mr. ROSE: Plaintiff objects as no foundation laid, hearsay, and not primary evidence.

Mr. STEWART: I wish to state that we produced these quotations at the request of counsel for the plaintiff, and made in the witness Deffenbaugh's cross-examination yesterday.

Mr. ROSE: I challenge the accuracy of that assertion on the face of the record.

Recross-examination.

Examined by Mr. ROSE on behalf of the plaintiff:

Q. Where is Frank Watson?

A. I cannot tell you.

Q. Is he in Lincoln now?

A. He worked for me, quite a considerable last winter.

Q. When was the last time you saw him?

A. I cannot tell that. I think the last time I saw him was the last job which was along the fore part of April.

By Mr. STEWART:

Q. This year?

A. Yes sir, this year.

Q. Where did he live at that time?

121 A. I do not know.

Q. Is he a married man?

A. I think he is.

Q. Does his family live in Lincoln?

A. I cannot tell you that. But my impression is that they do live in Lincoln.

Q. Does this municipal journal that you refer to deal in pipe?

A. They do not that I know of.

Q. Do they receive and fill orders for pipe?

A. Not that I know of.

Q. What is their financial responsibility?

A. I do not know.

Q. If you were ordering pipe you would not order from this municipal journal would you?

A. No sir, but I would take their quotations.

Q. Just answer the question. You say you would not?

A. No sir.

Q. What guarantee do you have that this journal would make this quotation good?

A. None at all.

Q. I think I asked you what firm that handled pipe had made you a quotation, can you recall the name of any firms who did make you a quotation?

A. No sir.

Q. Other than the Western Supply Co.

A. No sir.

Q. Where is this Journal published?

A. Flat Iron Building, New York City.

Q. What is the tariff rate on pipe per ton from New York City to Lincoln?

A. I figure on Birmingham.

122 Q. You answer my question if you can?

A. I cannot tell you.

Q. How often is this trade journal published?

A. Weekly.

Q. I believe you said it was mostly in the interests of municipal ownership?

A. No sir, I cannot say it is. It is mostly in the interests of the contractors and all municipal ownership and all pertaining to municipal affairs.

Q. You would not take a contract or make it on the basis of quotations found in that journal would you?

A. I think I would investigate a little further by inquiring of the foundry, but I think they are very reliable.

Q. The United States Cast Iron Pipe & Foundry Company is the largest dealer in cast iron pipe in this country is it?

A. Yes sir.

Q. It has its headquarters at Birmingham?

A. No sir, New York City.

Q. It has a foundry at Birmingham?

A. Yes sir, they have a string of foundries all over the country.

Q. And a quotation from that company, and the rate at the foundry with the tariff rates added to Lincoln would give a correct price, would it?

A. Yes sir.

Q. And give the price that the contractor at any particular time would be obliged to pay?

A. Yes sir, unless you take a large supply you probably could get it less.

Q. But you would get a quotation on a large supply just the same would you not?

A. Yes sir, that would be reliable.

123 Q. Then if Mr. Malone made his figures on that he would figure on the right basis?

A. Yes sir, I think he would.

Q. Now this man Frank Watson, was he a student, or just a laborer?

A. Just a laborer.

Q. Do you remember whether he lived, at 1542 O Street?

A. I cannot tell you where he lived.

Q. Does he work now, or did he work last year at the Beatrice Creamery Company?

A. I believe he did work a while at the Beatrice Creamery, that is my impression, that he did.

Redirect examination.

Examined by Mr. STEWART on behalf of the defendant:

Q. You say that you followed the quotations of cast iron pipe in this municipal journal and engineering news?

A. I believe that is what it is called.

Q. Have you found them reliable?

A. Yes sir, I have found them reliable.

Q. This shows the quotation at Birmingham?

A. Yes sir, it shows there it states what the quotation at the foundry is.

Q. And that is what you figured on?

A. Yes sir, plus the freight.

Q. What did you say the freight was from Birmingham?

A. Five dollars and ten cents is what we used to pay for it, for freight from any place in the Southern District, from Chattanooga, Birmingham, etc.

Q. \$5.10 a hundred?

A. Five dollars and ten cents a ton, tariff.

Witness excused.

124 Filed Jul- 6, 1908. Geo. H. Thummel, Clerk, by J. H. McClay, Deputy. A. D.

LOUIS JENSEN, being produced and duly sworn on behalf of the defendant testified as follows:

Examined by Mr. STEWART on behalf of the defendant:

Q. Where do you reside?

A. I reside in Lincoln, Nebraska.

Q. How long have you lived in this city?

A. Since 1878.

Q. What is your occupation?

A. Building contractor.

Q. How long have you been engaged in that?

A. Since 1884.

Q. In this city?

A. Yes sir.

Q. Have you a particular line of building contracts of work that you do, that is brick or frame?

A. Well I do the complete work, I do from the excavation. I do the work from the excavation up. Stone work, brick work, and all of the branches of building.

Q. Have you had any considerable contracts in this city of late years?

A. Yes sir, I have done considerable work.

Q. What are some of the last contracts that you had?

A. Well the last contract was the University Temple Buildings

Q. The John D. Rockefeller building.

A. Yes sir.

Q. What was the contract price on that?

A. About \$85,000.

125 Mr. ROSE: The plaintiff so far as Louis Jensen is concerned from Mr. Rose's personal knowledge, will *will* admit, his qualifications as a builder of brick, stone structures and public buildings, so as to save that proof.

Q. Have you examined the buildings of the Lincoln Gas & Electric Light Company, in this city, with a view of making an estimate of the cost of rebuilding them?

A. Yes sir.

Q. When did you do that?

A. Yesterday.

Q. Are you prepared now, and can you give an estimate of the reasonable value of the labor and material that would enter into the reconstruction of those buildings? I mean the replacement value at the present time?

A. Yes sir.

Q. You may state what it is, give it in detail.

A. In company with James Tyler—

Q. Who is James Tyler?

A. James Tyler Sr. The water commissioner.

Q. And the architect also?

A. Yes sir.

Q. Go ahead?

A. We measured the present buildings and we found that these buildings, that is the present value would be \$10,395.00, and that it has depreciated.

Q. Never mind, just the replacement first.

A. And then the center building there its value would be \$15,047, and then there is the west building there, that we estimated at \$6,550, and a two story part of the west building valued at \$1,092. And a coal shed \$2,000, and an oil house \$500, and an electric motor house, it was a small house on the north east there, we did not know just what that was; we had got a couple of electric motors at from \$650; and two chimneys, one steel and one brick \$3700. Total \$39,934.

Q. That includes all of the buildings occupied and used by your plant, electric and gas plant?

A. Yes sir.

Q. Did you make any estimate as to the depreciation of these buildings on account of age, that is what their present value would be, if so state?

Mr. ROSE: Plaintiff objects as immaterial, incompetent, the burden of maintenance and keeping it to its full value being constantly on the plaintiff and the original or replacement value being an item that the plaintiff is entitled to for a fair earning upon, as a matter of law.

A. Yes sir, we found that on the east building, that it had depreciated 25% making its present value \$77,961. And the center building had depreciated 30% making its present value \$10,532.97. The west building was depreciated 30% making its present value \$4,585. The two-story, there being no depreciation making its value \$1,092. The coal shed depreciated $\frac{1}{2}$, 50 per cent, making its value \$1,000. The oil house depreciated 40 per cent making its present value \$300. Electric motor house depreciated 20% making its present value \$520. Chimneys 15 per cent, making the present value \$3,145. Total \$28,970.97.

Q. Now on these first figures you gave as to the replacement value of those buildings, did you include in those estimates the contractor's profit?

A. Yes sir.

Q. You would be willing to take a contract to replace them for these figures?

127 A. Yes sir.

Cross examination.

Examined by Mr. ROSE on behalf of the plaintiff.

Q. What would you take to contract and replace them for, in their present shape, and complete them?

Mr. STEWART: Defendant objects as immaterial and as being silly.

A. You could not very well. Since some of them are about fallen down, you could not construct them the way they are.

Q. They are efficient at this time for the purpose for which they were constructed?

A. Well some of them are pretty shakey.

Q. What do you mean by pretty shakey?

A. Well they have depreciated so much that they are cracked in many places, and do not seem to have been kept up very well.

Q. You say some of them will require the cost of replacing them at an early day?

A. Why it looks to me as though so.

Q. Then for the convenient accommodation of the business and properly housing of the machinery and equipment there you think the company will be required to expend some money do you?

A. Well the roofs seem to be all right, it was seemingly the walls. The walls were lightly constructed, 9 inch walls, etc., and there is a kind of a soft foundation down there. I presume they have settled and cracked. That was the main thing.

Q. Do you know how deep the footings are?

A. No sir, we could not tell from the house, some of them
128 projected up above the ground.

Q. The question of getting a solid foundation there is quite a serious one is it not? In that locality?

A. Well I don't know just how far they would have to go down. Sometimes we do not have to go but three or four feet to the clay.

Q. In that locality I ask you?

A. Well I am not quite sure as to that locality. We strike the blue clay, sometimes on top which is all right for a foundation. Strike it sometimes on top, and that is all right for a foundation.

Q. Right in the salt basin do you strike it there?

A. Well I don't know as to the salt basin.

Q. Have you had any experience in excavating there at that particular locality?

A. No sir, I have not.

Q. You do not know how deep the footings are for the big chimney?

A. No sir, I don't.

Q. In figuring on the contract of approximately \$40,000 involving so many buildings as there are there, would you undertake to give the figure right on as short an examination as you have had on the plans and structures as you have had for this job. Or would you go more into the details of it.

A. Oh, I presume I would go more into details—, I estimated one of those buildings, and found that the cost would be about \$8,000—Well we put it at \$10,000. Of course Mr. Tyler was with me, and we consulted as regards to the cost at the present time, and so we put it a little higher. In other words he put it at 6

129 cents a cubic foot. That class of buildings we sometimes estimate them from 7 to 16 cents a cubic foot, and he rather thought that this class of buildings should be put at about 6 cents. And so I yielded and set that price on it.

Q. You did not really have any time to run out and extend the material in the various walls, and the cost of the labor, per thousand feet of brick and the like of that?

A. I did in the first building. I did on the building I have designated as number one. I find the estimated cost of that would be about \$8,000. We put it at \$10,395, on account of putting it at 6 cents a cubic foot.

Q. And that is the only item you undertake to run out the extension of the details on?

A. I estimated the material used, because that was the hardest thing to get out, and found what it would cost.

Q. That was the item of \$2,000?

A. Yes sir.

Q. Now aside from those two times, did you attempt to go into it at all?

A. No sir, not in detail.

Q. And the time you had would not permit you to run out the details?

A. No sir.

Q. To reduce the work to its details so you could figure with absolute accuracy?

A. No sir, only as basing it on the first having estimated one of them. All being of the same nature we based it on this 6 cents a cubic foot.

Q. Those costs would vary considerable would they not? It depends on the particular character of the structure, they are not identical?

130 A. No, they are a little different.

Q. What did you estimate for the receptacles for tar that are excavated into the ground, and things of that kind?

A. We did not estimate that, we just estimated the buildings.

Q. Did you make a close enough inspection so you could tell what sort of cisterns or holders they have for tar in the ground?

A. No sir, we did not, we did not investigate those things at all.

Q. There are some details that you probably haven't included?

A. We just included the buildings, no material or anything else.

Q. Would you take a contract to replace the west building for \$6,550.

A. There are two parts to the west building? There is the west building estimated at \$6,550, and the 2nd story part at \$1,092, making \$7,642.

Q. Do you think you could replace that for that?

A. Yes sir, easy.

Q. Just as it is now for that sum?

A. Yes sir.

Q. That west building has just three walls?

A. It is just a large room, it has a west wall, and the north and south walls and then a flat roof on posts.

Q. The one thousand dollar building, was built last year was it not?

A. I do not know when it was built. It was new. That building is 20 by 29, and 29 feet high. That is including the basement.

Q. At the time that was built last year, brick masons were scarce here, and very much in demand?

A. Well there are very few brick in it. There is only a nine inch wall. Three walls.

131 Q. Brick masons charge a dollar an hour for their work, don't they?

A. In some instances don't they?

A. Oh, 67 cents. 65 cents I paid. The highest wages were about 67½ cents.

Q. It would be a little cheaper this year?

A. Well, their scale is about 55 cents.

Redirect examination.

Examined by Mr. STEWART on behalf of the defendant:

Q. What was the scale last year?

A. The same, but on account of the scarcity of bricklayers, we had to raise above the scale.

Q. It was 55 cents last year?

A. Yes sir.

Q. The buildings that you found in the worst condition, and the one that you think might be required to be replaced, or materially improved is a coal shed?

A. Yes sir.

Q. That was in the worst condition?

A. Yes sir.

Witness excused.

HOMER HONEYWELL, being recalled for further cross examination, testified as follows:

Examined by Mr. STEWART on behalf of the defendant:

Q. You had the coal contracts for the years 1905, 1906 and 1907?

A. Yes sir, from February 27, 1905 to April 1st, 1906, and from April 1st, 1906, to March 19, 1907. They did not run
132 in even years. They all expired on the first day of April then.

Mr. STEWART: Defendant offers in evidence exhibits 109, 110, and 111, being the coal contracts.

Mr. ROSE: Plaintiff objects to the coal contract for 1907 because it is too limited to have any bearing upon the controversy, here, and the parties agree in this case as in the others, that the copies may be reported by the examiner, and the originals retained for the convenience of the company.

Mr. STEWART: Defendant offers in evidence the three oil contracts, marked Exhibits, 112, 113, and 114.

Mr. ROSE: Plaintiff objects for the oil contract for the year 1907, because it is too limited to have any bearing upon the controversy here. We agreed in this case as in the other cases, that the copies may be reported by the examiner, and the originals retained for the convenience of the company.

Q. Have you looked it up so you can state what this item something like fifty cents per ton, for handling of the coal consists of, what makes that up. Have you looked into that?

A. No sir.

Q. Have you looked up the items of the coke expense?

A. No only partially.

Q. You have not got the data for that?

A. No sir, Professor Bemis has that report.

Redirect examination.

Examined by Mr. ROSE on behalf of the plaintiff:

133 Q. There are some strike conditions I notice in this contract and provisions concerning extraordinary conditions of the market. In actual experience have you been obliged to pay higher than the schedule of price in these contracts, at times in order to get your supply of coal?

A. Yes sir, as much as a dollar a ton or more.

Q. Has the cost of coal been necessarily effected by the strikes and look outs in the coal producing regions?

A. Yes sir.

Q. And has it been effected by car shortage at any time?

A. Yes sir, we have failed in the fall when the grain is moving eastward, in getting coal here.

Q. And are you able at all times to anticipate that, by getting in enough supply to run through and over such periods?

A. No sir, we aim to keep a supply on hand but you cannot always do it. We have been down as low as one day's supply at the plant.

Q. In actual operation is it necessary at certain seasons of the year to keep a very large supply of stock on hand?

A. Yes sir.

Cross examination.

Examined by Mr. STEWART on behalf of the defendant:

Q. What year was there a strike that caused you to pay a higher price for coal?

A. I misspoke myself when I said a dollar a ton. We paid considerably more than that. I remember when Van Ness was here in 1903 we paid as high as 7½ dollars a ton for Colorado Coal. It was the only thing we could get. I do not mean 1907 it was 1906. We had to use Kanawha Coal at a considerable increase cost, a poor kind of coal.

Q. What time of the year was that?

134 A. Along in the fall, early in the fall.

Q. Did you use any considerable quantity of that?

A. Yes sir, I do not remember just how many car loads, we had a lot of it.

Q. That could be looked up or determined from the vouchers?

A. Yes sir.

Redirect examination.

Examined by Mr. ROSE on behalf of the plaintiff:

Q. So your actual cost of fuel is correctly stated on your report?

A. Yes sir.

Q. That embraces the actual experience in the work of administering the affairs of the company?

A. Yes sir.

Recross-examination.

Examined by Mr. STEWART on behalf of the plaintiff:

Q. Was there any high priced coal used in 1905?

A. 1905?

Q. Yes sir?

A. I do not remember.

Q. How about 1907?

A. In 1907, I don't think we did, no sir.

Q. It was in 1906 that you had some of the high priced coal?

A. Yes sir, it was last year that we had it piled up.

Q. Do you now remember what the price of your coal was in 1906?

A. No sir.

Q. I see these last contracts for oil, the ones for 1907, Exhibit "114" contains a provision there for furnishing gas oil at

135 27-34 degree oil, do you know what that means?

A. 27-34 oil gravity.

Q. How did that effect its value as a gas producer?

A. Well you would not want too heavy an oil, you would want a fairly light grade, not too light, 26 to 30 is usually called gas oil.

Q. How do they get the high specific gravity in oil?

A. I do not know, you have got me?

Q. I have got you?

A. Yes sir, there are three properties taken out of the oil.

Q. What properties are taken out of the oil?

A. Kerosene and gasolene, and benzene, I think.

Q. Well they take them out before it is suitable for use in making gas?

A. Yes sir.

Q. Some process of distillation?

A. Yes sir.

Q. It takes kerosene, gasolene and benzine out?

A. Yes sir, I think those are the three.

Q. Do you know anything about the different grades of this gas oil?

A. We always try to buy either 26 to 30 somewheres along there, gravity oil.

Q. What kind would not be suitable for your purposes?

A. Well just a crude oil would not be very suitable, they do use it but you do not get as good results as you do from the gas oil.

Q. Well is there any difference between what you call gas oil, and the ordinary fuel oil?

A. Oh, yes.

Q. Do you know what the difference is?

136 A. No sir I do not know what the difference is, but the price would convince you there was a difference.

Q. They quote different prices?

A. Yes sir.

Q. Have you any quotations on oil that you could get?

A. On fuel oil?

Q. Yes sir?

A. No sir, I never used any of that.

Q. I notice that the legal expenses for 1906 and 1907 are very much higher, very much higher with your company than they were during the proceeding year. Is that occasioned by the fact that you have go- this law suit to fight?

A. I think the biggest expense was occasioned by Stewart & Munger, getting a judgment against us for \$1,500 or in getting a settlement with us for \$1,500.

Q. When was that?

A. I think that was in 1906.

Q. Well do you enter those personal injury suits up as legal expenses?

A. Yes sir.

Q. Well how about 1907?

A. Well we had some expenses on the suit in 1907.

Q. Your legal expenses run about five or six or seven hundred dollars a year for a good many years?

A. In the gas department you mean?

Q. Yes sir?

A. I do not remember.

Redirect examination.

Examined by Mr. ROSE on behalf of the plaintiff:

Q. You were asked whether you used any high priced coal in 1905. The report seems to show some discrepancy in the price of coal as I understand, and shows quite a low average for 136 1/2 1905, do you have any recollection of using Kansas Coal for a portion of that year, now that it is recalled to you?

A. Yes sir.

Q. Was that a low priced coal?

A. Yes sir.

Q. Now you may state whether you found it profitable to use that coal, and if not why not?

A. Well the price was boosted up it started at about \$3.75, or something like that, at the fore part of the year, and along towards summer the price was boosted up. And it is very rich in sulphur. It is hard to purify, you have to have lime purification to take it out. We then discontinued it.

Q. Was it expensive?

A. Yes sir.

Q. Was there any complaint of the odor at the faucets where it was used?

A. Oh yes.

Q. And is it practical with your machinery and equipments here to use that low priced Kansas Coal.

A. No sir, it is not low priced now.

Q. Well whatever price it is is it practical now to use it in this plant?

A. No sir.

Q. Have you found it impractical by actual experience?

A. Yes sir.

Q. You may state whether or not it is in any way harmful to the machinery and equipment for making coal gas?

A. Yes sir, and as I say it is rich in sulphur and it is poor
137 stuff to use in the water gas set, the sulphur is carried over in it, you cannot get it out unless you have lime purification. It is absolutely no good.

Q. Which is for no practical purpose?

A. Yes sir, that is for any practical purpose.

Recross-examination.

Examined by Mr. STEWART on behalf of the defendant.

Q. Even the price was lower, it would not save you any money?

A. No sir, I think the purification would run up so as to more than eat up the difference.

Q. Now that contract, did you have a yearly contract on that?

A. No sir, I do not think I did.

Q. Did you have a contract that expired February 1st, 1905?

A. I do not remember whether it was a yearly contract or not.

Q. Your contract expired on February 1st, 1905, on that did it not?

A. I do not remember, we had one with the Fidelity people I think. We had a memorandum and agreement or something like that.

Q. So as a matter of fact, could you look the record up and see if it is, and, as a matter of fact, you did not get any of that coal after February 1st, 1905?

A. Well I am not positive about that.

Witness excused.

It being now 12 o'clock an adjournment was taken until 2 o'clock P. M. same day, May 8, 1908.

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2 O'CLOCK P. M., May 8, 1908.

Parties met pursuant to adjournment and the following proceedings were had and done:

JAMES M. DEFFENBAUGH, recalled for further redirect examination.

Mr. STEWART: Defendant offers in evidence the Municipal Journal and Engineer, of *day* April 29, 1908, and particular- page number 545, under the head of trade notes, "Cast iron pipe," marked Exhibit "115."

Mr. ROSE: The plaintiff objects because its authenticity and credibility is not shown and because from the testimony of the witness himself, he would not base any bids in this locality upon any supposed items or quotations in this particular journal.

Q. This is the trade journal you had reference to in your testimony, Exhibit "115"?

A. Yes sir.

Witness excused.

Mr. STEWART: Defendant offers in evidence, contract for Kansas Coal, marked Exhibit "116."

Mr. ROSE: Plaintiff asks leave to withdraw the original supply, and supply a copy in place thereof.

Filed Jul- 6, 1908. A. D. Geo. H. Thummel, Clerk, by J. H. McClay, Deputy.

H. S. WIGGINS, being produced and duly sworn on behalf of the defendant, testified as follows:

Examined by Mr. STEWART on behalf of the defendant:

Q. Where do you reside?

A. Lincoln, Nebraska.

Q. How long have you resided in this city?

139 A. Continuously now for nine or ten years past.

Q. What is your occupation?

A. Public accountant.

Q. How long have you been engaged in that kind of work?

A. Ever since I have been in Lincoln, 9 or 10 years.

Q. What was your occupation formerly and prior to that time?

A. Railroad accountant.

Q. How long have you been in the business of an accountant?
acting as an accountant?

A. Between 20 and 25 years.

Q. Have you examined the books and the accounts of the Lincoln Gas & Electric Light Company, the plaintiff in this case?

A. Yes sir.

Q. When have you done that, or when did you do that?

A. Practically during the last three or four weeks.

Q. What books have you examined that show to receipts and disbursements, and earnings, and other items in connection with the operation of the Gas Department?

A. Any tabulation that I have made of the receipts and expenses of the Gas Company, have been made from books, known as the gas account, and the yearly gas account. I have also examined in this connection what is known as the accountant's table, the ledgers, that show the segregation of the expenses.

Q. What books will now be required to show these matters?

A. I think the gas reports——

Q. Have you those here?

A. No, I asked the boys to bring them up, but they have not got them here yet. The reports for the year- 1902 to 1907, inclusive, the gas reports.

Q. Have you made an analysis of those accounts?

140 A. Yes sir.

Q. Or any comparative statement?

A. Yes sir.

Q. Have you those with you?

A. Yes sir.

Q. Now look at Exhibit "117" and state what that is?

A. It shows the expenses or the costs of material and expense of making the coal gas for the years 1905, 1906 and 1907. Exhibit "118" shows the costs of material and expenses of making water gas, for the years 1905, 1906 and 1907. Exhibit "119" shows the cost of mixed gas, on the basis of the amount sold for the years 1905, 1906 and 1907. Exhibit "120" is my recapitulation of the gas made the gas sold and the gas used by the Company and gas unaccounted for for the year- 1902 to 1907 inclusive. Exhibit "121," is comparative ratios showing the comparison in various items of cost and expense for the years 1905, 1906 and 1907, with the results for the years 1906 and 1907 being compared with the results for the year 1905. Exhibit "122" is a comparative statement of the gas sales, expenses and net earnings for the years 1902 to 1907 inclusive, which shows sales and net price per thousand and net earnings.

Q. Now turning to the book that contains the data from which you made these various exhibits, which you have just identified and referred to, let the reporter mark them as exhibits.

A. Exhibit "123" this is a summary of the 12 months for the year ending December 31, 1902, of the expenses of the Gas Department, also a summary of the earnings. Exhibit "124," is the gas report by months for the year 1903, also a summary in the back of the book for the entire period of 12 months. Exhibit "125" is a report of the expenses and earnings of the gas department by months for the year 1904 also a summary in the back part for the entire 12 months. Exhibit "126" is a report of the earnings and expenses of the gas department for the twelve months of the year 1905. The summary for the year 1905 is a separate statement. Exhibit "127" is a summary of the earnings and expenses of the gas department for the year 1905. Exhibit "128" is a report of the earnings and expenses of the gas department for the 12 months of 1906, but does not include the summary—That summary is mentioned in another exhibit. Exhibit "101" is a statement of the earnings and expenses of the gas department by months for the year 1907. Also a summary in the back for the entire year 1907.

Q. Referring to Exhibits "117" to "112" inclusive, which you have identified, I will ask you if those contain correct summaries and comparisons and deductions made from the books of the plant which you state you have used in making it up?

A. Yes sir, I will say that this compilation of mine is exactly as it appears in the books, that have just been identified.

Q. These books are exhibits numbers "123" to "128," inclusive and Exhibit "101."

A. Yes sir.

Mr. STEWART: The defendant offers in evidence Exhibits "118," "119," 120," "121," and "122," and "117."

Mr. ROSE: Plaintiff objects to the schedules because their verity is not sufficiently established, and the competency of the witness not sufficiently shown and because they do not seem to have any bearing upon the controversy, and we object specifically to so much of the schedules as cover or purport to include an exhibit of the company's business for the year 1907, as too long subsequent to the date of taking effect of the ordinance in question and too remote to have any bearing upon the issues.

Q. You say you compiled those exhibits numbers "117" to "122" inclusive?

A. Exhibits "117," "118," "119" and "120" are compiled directly from the Gas Company's reports, that have been identified, and that are now before the court, Exhibit "121" is my own compilation but based on those reports. Exhibit "122" is taken directly from the report or based on the report.

Q. And are those correct compilations?

A. Yes sir, to the best of my knowledge and belief.

Q. You made them yourself?

A. Yes sir.

Q. Have you any data as to the cost of the coal carbonized? during the years 1906 and 1907?

A. I have taken from the original vouchers, and original invoices and vouchers the amount paid for the Youougheny Coal in the years 1906 and 1907.

Q. Have you the data with you?

A. I think so, yes sir.

Q. If you have state it?

A. The average price of Pennsylvania, that is the Youougheny, and other eastern coal purchased from the Pittsburg Coal Company in the year 1906 at \$5.40. In the year 1907 the average price paid was \$5.46 $\frac{2}{3}$ per ton.

Q. Now you say the average price paid, did that include some coal for which they paid more than the contract price, for which the company paid more than that?

A. Yes sir, there was some coal that cost \$5.70, \$5.75, \$5.85 in 1906.

143 Q. And what was the regular contract price in 1906?

Mr. ROSE: Plaintiff objects for the reason that it is shown what the contract price is.

A. Well, part of the year it was \$5.37 $\frac{1}{2}$ cents and part of the year it was \$5.52, I think in 1906,—no I was wrong about that. From February 1st, to April 1st, 1906, the contract price was \$5.20. From April 1st 1906 to April 1st, 1907, the contract price was \$5.37 $\frac{1}{2}$.

Q. Now the average price paid for coal that year was what?

A. \$5.40, that was on cars at Lincoln.

(By Mr. ROSE:)

Q. That price included nothing for the cost of unloading?

A. No sir.

Q. Now what additional cost was added to these prices by the company for the handling?

A. Well I do not know how much it would amount to per ton. That is I have not computed that. I could give the amount that was paid for handling in dollars and cents, but I have not——

Q. Well in dollars and cents?

A. I think I gave it to Professor Bemis just before lunch.

Cross-examination.

Examined by Mr. ROSE on behalf of the plaintiff:

Q. I notice that in Exhibit "117" you don't include the expenses of making coal gas in the years 1902, 1903 and 1904, Why did you omit the items for those particular years when you included those years in other summaries that you prepared?

A. Well, simply for the purpose of simplifying the matter, and not covering such a long period of time.

Q. Then why in summaries Exhibits "120," and "122" did you include the years 1902 and 1903 and 1904, instead of following your plan of simplifying and verifying the account with great complications?

A. Simply because the cost of gas was different in those years and it was desired to show the amount the gas sold for, for a longer period of time than we cared to go into in the other exhibit.

Q. In other words if you thought you could make a point by one item in those years, you would carry that item and omit the same years, in the other general summaries because they could not serve the city.

A. No sir, that is not the cause. The reason was to show the effect on the net earnings of the reduction in price from the year 1902 down until it reached the rate of \$1.20 I do not think so far as any point goes in the expenses for the years 1902, 1903 and 1904 would be very material.

Q. Well would not the fact that the cost of manufacturing at the station was decreased after the years 1902, 1903 and 1904, have the same importance exactly as showing how the increased profit was arrived at in subsequent years?

A. I do not understand the question.

Q. The fact that the cost of manufacturing and delivering of gas to the company's holder was decreased would in a measure counterbalance a reduction in price would it not?

A. Yes sir.

Q. And as bearing upon that item the schedules as to the station cost of manufacturing and delivering gas to the holder would be just as important in exhibiting a true analysis of the fact of reductions as the general results of net profits on the business for different years, would it not?

Mr. STEWART: The defendant objects as being unintelligible.

145 A. Well I would say that that data is interesting, but just what bearing it would have on the results, I do not know so I could tell you.

Q. You know don't you that the decrease in the cost of manufacturing and delivering the gas itself to the holder, might be so great as to entirely counterbalance the reduction in charge, don't you?

A. Yes sir, it might be.

Q. Now why do you exclude that element from your analysis of the year- 1902, 1903 and 1904?

Mr. STEWART: The defendant objects for the reason that the defendant, the city of Lincoln, has a right to make its case and not required to make such a case as the complainant thinks we should try to make, for the reason that the books and data are all present, and the information is all in the possession of the complainant, and if any additional showing is necessary or proper according to the complainant's ideas, they can go over them in evidence.

Q. Will you answer the last question, why you excluded it?

A. I have not answered it yet.

Q. Can you give any reason for excluding those years from the other schedules, and including them in schedules exhibits "119" "122"?

A. My answer to that first question would cover that. It was thought desirable not to incumber the records or exhibits with a great mass of figures.

Q. Was it also thought desirable to exclude from the inquiry, the fact that the station cost of the gas had decreased since those years, or did that have any element or enter into it?

146 Q. You did not take that into account, you would not say that?

A. No sir, I would not say that I did.

Q. Now you have had access to the books, records and vouchers of the gas company practically since last September have you not?

A. I did some work since last October, I think for about ten days.

Q. And at intervals since then you have applied to the company for access to its books and records.

A. Yes sir.

Q. And you have given fair access consistent with the convenience of the company in administering its own business?

A. Yes sir.

Q. And you have checked out and approved, in a measure, the accounts of the company?

A. Yes sir.

Q. Now from your examination of the books would you say that the methods of accounting of the company seemed to be fairly accurate and conscientious?

A. Yes sir.

Q. Such mistakes as you found were such as you might expect to find in any set of books?

A. Yes sir.

Q. Did you find any evidence of any effort during any of the

years shown in these records, of a manipulation of the books, or anything of that sort?

A. I did not find anything that indicates that.

Q. So far as your examination shows the company has attempted at least to keep an honest and fair record of its business transactions?

A. So far as my examination goes I would say so.

Q. And after checking those out you would feel justified in relying upon the general summaries, exhibiting the business in a summarized form?

147 A. Yes sir, I think so.

Q. I notice that you have not gone into the cost of maintenance and distribution at all? Have you?

A. Yes sir.

Q. In those summaries, I mean in the schedules you have exhibited. I did not know whether you were going to be asked for any more or not?

A. Yes sir, the distribution expenses and collection expense is all shown in any one of those exhibits as general expense.

Q. I have not gone over that. I took from your summaries that you had not done that?

A. Yes sir, it is the third sheet there.

Q. Exhibit "119"?

A. Yes sir, the cost of mixed gas.

Q. Now in your distribution expenses did you take anything into account for interest on investment?

A. No sir, I followed the method of accounting used by the company.

Q. Did you take anything into account for the item of depreciation?

A. No sir.

Q. And as I understand the system of accounting actually employed in the company, it does not enter up these items as a part of the distribution expense?

A. No sir.

Q. What would be the element of investment in the plant is not yet carried into the summary?

A. No sir.

Q. When the element of depreciation is not carried into it?

A. No sir.

Q. Of course as I would take it as an accountant you would say that what would be regarded as a reasonable return on necessary investment, should be apportioned partly to the cost of manufacturing and partly to the cost of distribution in getting the ultimate final results.

148 A. Why I think that would be good accounting yes sir.

Q. And also whatever, if any element, on account of the general decay of the plant like this building here, as testified by Mr. Jensen, after a certain number of years they get old, so one of them here, he says is worth only 50 per cent. of a new building. Now to keep the capital intact, a certain element of that depreciation would also have to be charged to the cost of manufacturing and a certain portion of it to the cost of distribution.

A. Well that is a matter resting largely in the discretion of the management. The company does make a charge for depreciation under the head of reconstruction reserve, a thousand dollars a month on the entire plant.

By Mr. STEWART:

Q. You mean the electric and the gas both.

A. Yes sir, both the electric and the gas plant. Now as to whether that should be distributed partly to manufacturing and partly to distribution, and other elements of expenses is simply a matter of detail.

Q. It is a matter you would not pretend I suppose, to answer, authoritatively?

A. No sir, I would not expect to do that, no sir, I do not consider myself an authority on that.

Q. That is, that reconstruction reserve, you would know whether that was made necessary on account of the inadequacy or something of that sort from time to time, outside of depreciation entirely.

A. Well I take it that the reconstruction reserve and the charge for depreciation amount to one and the same thing?

Q. You do not know that it does though?

A. No sir, but as an accountant it would appeal to me as meaning exactly the same thing.

Q. Did you get anything to ascertain why that was made, did you make any inquiry?

A. No sir, I did not make any inquiry.

Q. And that amount- to only a thousand dollars for both departments?

A. Yes sir, a thousand dollars a month.

Q. Or \$666 the way they distributed their expenses to the gas department a month?

A. Yes sir.

Q. About \$7000 a year?

A. Yes sir.

Redirect examination.

Examined by Mr. STEWART, on behalf of the defendant:

Q. When did the Lincoln Gas & Electric Light Company begin to charge off this thousand dollars a month for the reconstruction?

A. In January, 1906, and has continued and is still continuing to this present time.

Q. Have you a summary, a brief summary, of the gross and net receipts of the Electric Light Department?

A. Well I do not know as I have.

Mr. ROSE: The plaintiff objects as immaterial.

A. I was under the impression that I gave that to you, I have a memorandum here of the earnings and the expenses, the net earnings of the Electric Light Department for the years 1904, 1905 and 1906 and 1907, taken from the electric report for those years.

150 (By Mr. ROSE:)

Q. Is that the gross and the net earnings?

A. Yes sir, the gross and net earnings.

Q. You may state what is shown by the earnings of that department for the years 1905, 1906 and 1907?

Mr. ROSE: Plaintiff objects as immaterial because the giving of one item of the gross earnings would not furnish any accurate or fair test of the correctness of the distribution of the expense items in the ratio of one or two.

A. For the year 1904 the gross earnings were \$77,958.90, the total expense \$52911.26, the net earnings \$25047.64. For the year 1905 gross earnings \$91052.62. Expenses \$57467.42, net earnings \$33585.20. For the year 1906 the gross earnings were 6116565.23, the expenses \$77977.88, and the net earnings \$38,587.35. For the year 1907, the gross earnings were 6136439.55, the expenses were \$96646.31, and the net earnings \$39793.24.

Q. Now have you got the construction account of the Lincoln Gas & Electric Light Company as furnished by Mr. Honeywell which was introduced as Exhibit "E" at the former hearing?

A. Yes sir, I have.

Witness excused.

HOMER HONEYWELL, recalled for the defendant.

Examined by Mr. STEWART, on behalf of the defendant:

Q. Is exhibit "129" the itemized construction that I asked you to prepare for me at the previous hearing in this case?

A. Yes sir.

151 Q. That you have taken from the books of the company?

A. Yes sir.

Q. This is the itemized statement of Exhibit "E" that you testified to on your former examination?

A. Yes sir.

Mr. STEWART: Defendant offers in evidence Exhibit "129."
No objection.

Cross-examination.

Examined by ROSE, on behalf of the plaintiff:

Q. Do you have an absolute and accurate data back as far as this construction runs?

A. No sir.

Q. Is there any way that you can check with absolute definiteness the cost to the company of the properties originally acquired and the structures originally built?

A. No sir, there are too many different ways of keeping books.

Q. And do you know that this is adequate, fully adequate?

A. No sir, I testified before that that was correct, to the best of my knowledge and belief, I would not swear that it was, or whether it was incorrect.

Q. You did not mean to vouch absolutely for its correctness?

A. No sir.

Q. It may be too small or it may be a little too large?

A. Yes sir.

Witness excused.

H. S. WIGGINS, recalled on behalf of the defendant, testified as follows:

Examined by Mr. STEWART, on behalf of the defendant:

152 Q. Did you check that construction account through with the books of the company?

A. Yes sir.

Q. From the beginning?

A. Yes sir.

Q. When was it originally started?

A. In 1872 or 1873, this states 1873, but I think the first work was done in 1872.

Q. And did you find the original construction account to be as headed there. What is it?

A. "Gas Construction" is the head. Yes sir, usually it was headed as Gas Construction, in the various books that were kept.

Q. And what was the amount of the initial cost of the plant as shown by the books?

A. Why I think it was \$53,700.

Q. Do you know whether the books of the company showed about the payment of that, whether it was cash or bond?

A. It was paid in stock of the company.

(By Mr. ROSE:)

Q. Did you get the exact figures?

A. \$53,700 I think was the contract price.

Q. Did you find any inaccuracy in that. Any duplication of account?

A. Well I found a duplication. I found where the entire construction payment for the year 1900 was also included in the statement for construction for the year 1901, making a difference of \$22,538.

Q. Do you mean by that, that that was a duplication in the books or duplication in Mr. Honeywell's statement?

A. A duplication in Mr. Honeywell's statement.

Q. Now is there any item included in that for the year 1892 of commission on bonds?

153 A. There is an item in the year 1892. On page 25 commission on 333 bonds, sold \$16,397.50. Expenses on bonds \$618.31.

Q. Now turning to page 11, and referring to labor account, that entry there, did you examine the books to ascertain as to whether the labor in the manufacturing and distribution of gas, that year was run into the construction account?

A. My remembrance is that there was very little labor shown in the gas manufacturing department. Whereas the labor that appeared charged to construction account, seems excessively heavy. I found for instance items of \$705, \$289, \$541, \$304, \$1,308, I omit the cents—\$176, \$483, \$156, \$498. These items as I recall it were weekly wages to the men. The way they are carried through the books I fail to find very much labor charged, to manufacturing or expense.

Q. Did you find anything indicating any construction work done that year, of any consequence for construction material?

A. Well there is a very large charge for construction material during that period.

Q. Did you find any items through this construction account in the nature of attorney's fees, charged to construction?

A. Yes sir at very frequent intervals there were charges of attorney's fees.

Q. Take page 26, do you find any item there charged in the construction account that was for maintainance or renewals?

A. I found the charge of the La Clade Fire Brick Company, two charges in fact. One of \$3,215 and another of \$513.58. This seems to be charged for cupola brick in the construction of benches. I have no means of knowing whether that was rebuilding benches or the original installation of the benches.

154 Q. On page 37, do you find anything in the way of an item of taxes charged to construction?

A. On page 37, in the year 1905, I find an item of \$200 taxes charged to construction.

Q. On page 49 do you find anything in the nature of repairs charged to construction of renewals?

A. On page 49 in the year 1899, I find another entry. Laclade Fire Brick Manufacturing Company, \$865.80. That was two benches of sixes. I could not say whether it was rebuilding the benches or the original installation of the benches.

Q. What books do you find this construction account in? what were they run in?

A. They were in the various ledgers, running through.

Q. Do we have them here?

A. They are not in evidence, no sir.

Q. They have not been identified?

A. No sir, they have not been identified.

Q. Was that all the items connected with that? Have you examined the books of the company, in regard to the stock issue on December 31, 1892?

A. Yes sir.

Q. What book is that found in?

A. In Journal B, Page 161, December 31, 1892. Entry of capital stock issued, \$500,000.

Q. Do the books show anything received for that stock by the company?

Mr. ROSE: Plaintiff objects as immaterial.

A. No sir they do not.

Q. Have you examined the entry in December 1897, relative to stock and bond issue.

155 Mr. ROSE: Plaintiff objects as immaterial and being *and being* an antecedent company, and having nothing to do with this controversy.

A. In 1897 there was an additional stock issue of \$450,000 and a bond dividend of \$165,000. A total of \$615,000.

Q. Does the company appear to have received any consideration for that issue of stocks and bonds?

A. No sir, it is charged against profit and loss.

Q. Where is that entry found?

A. It is in Journal "B" page 410.

Cross-examination.

Examined by Mr. ROSE on behalf of the plaintiff:

Q. There were some other expenses aside from the naked contract price of the original construction, were there not?

A. Some little, yes sir.

Q. So that the other outside expenses would run it up, the original construction from 1873 up to the figure that Mr. Honeywell gave, would it not?

A. Yes sir, I think so.

Q. And how did you ascertain this duplication for the year 1900 and the year 1901?

A. Just by checking it over with the books.

Q. That is Mr. Honeywell has included these items in both years, in his statements, when they were not included in the books?

A. Well, no that is not exactly the status of the matter. As I recall it they had changed from one set of books to another, and in changing they brought forward the entire amount paid for the construction in the previous year. So that at the end of the year 1901 the amount in construction represented two years' business on the back years, the amount on the books represented two years' expenditure. And Mr. Honeywell very naturally followed the items and had taken off the previous year, item by item.

156 Q. So that the examination of the books will disclose what the error was?

A. Yes sir, it is a very natural error.

Q. Now you would not say that the commission on a bond sale, the bond used for construction, was not properly charged to construction expense, would you?

A. No sir, I would not say that.

Q. And you would not say that the other expenses of the bond for lithographing and attorney's fees in getting up the abstract of the corporation would not be properly charged in any case to construction account, would you?

A. That would be properly chargeable to construction account, but would have no bearing whatever on replacement value, or anything of that kind.

Q. Why would it not? Would not you have to get the money

in the same way, and issue the bonds in the same way, in a town of this size?

A. Well I understand that replacement value means what would replace it if you had the money to pay for it.

Q. That would be your definition of replacement value?

A. Yes sir.

Q. Now you would not be able to say definitely that the manufacturing cost and labor in 1888 was carried in the construction account would you?

A. No sir, I could not say positively that it was.

Q. You saw some indications from the general value of the account that indicated that that might be done?

A. Yes sir.

Q. You would not say that the reasonable charges for attorney's fees might enter into the construction account, such as drawing contracts, and the like of that. And taking care of a contractor's suit, or anything of that sort?

A. Yes sir, that would be a proper charge.

157 Q. And those things are identical to the construction of a plant the size of this?

A. Yes sir that might be.

Q. And might very probably be considered the same as the cost of the physical properties as far as you know?

A. If the expense was incurred on account incident to construction, that would be properly chargeable.

Q. And those contingencies that do arise, enter into and from a part of the cost of physical properties, don't they?

A. Yes sir.

Q. Now do you say the La Clade Fire Brick Company item of \$3215 for fire brick on page 26 of Mr. Honeywell's report was all used for benches?

A. Yes sir, I think it was the contract price for benches as I recall it.

Q. Then you would not say but what that was additional benches constructed under contract?

A. No sir, I would not say that.

Q. Now do you know when block 79 was acquired by the company?

A. Well, my recollection would be that it was about the year 1888 or 1889.

Q. It might have been as late as 1890?

A. It might have been.

Q. Do you know when they acquired this block 83 in Lincoln, the block that the Lincoln Electric Light Company formerly owned?

A. No sir, I don't.

Q. Do you know when it acquired some additional properties in the vicinity of the gas company adjoining there to prevent being crowded, and for storage room and for future expansions?

A. No sir, I don't know.

Q. Now I asked that because of you mentioning one item of \$200 tax charged to construction. Is that the only thing you find charged to construction for taxes?

158 A. Yes sir, it is the only thing.

Q. Suppose the company by purchasing a lot that was subject to a tax lien of \$200, and has used real estate acquired in construction work, then in discharging the tax lien which we assume is a portion of the cost of this new construction, an item of that kind as low as \$200, might very properly enter into the construction account might it not?

A. Yes sir.

Q. You have not examined the details to see whether or not it was an item of that kind or not?

A. No sir, I would say in regard to those old matters back in 1888, 1889 and 1890 that I don't think Mr. Honeywell or anyone connected with the company has any very definite knowledge as to what those items were for.

Q. The actual cost of construction might have been much greater than what the books show at that time. That is the accounts may not have been kept as accurately as they are now, the methods of distribution may have been wrong at that time?

A. Well I have not seen anything to indicate but what the charges were proper enough.

Q. Now from all these items that we have run over here you find no charge to the construction account but what appears on the face of the record, to be legitimate?

A. No sir.

Q. These were the most important items at any rate?

A. Yes sir.

Q. There would be no very important items. There were some items for payment to—quite a number of payments to Mr. Van Riper, and to Mr. Mullen, and to others that I could not understand why they would be charged to construction but I could not say that they were wrong, and as I said before there is no one here,
159 that offer any explanation except just what is shown on the books on those.

Q. Of course the vouchers might show if you could get back to the original voucher it might show?

A. Yes sir, it might show.

Q. Now do you know when the company acquired the old Electric Light company, did you trace that back?

A. I could not give the exact date, Mr. Honeywell might.

Q. Now the books that you have examined include the books of the original Lincoln Gas Company?

A. Yes sir.

Q. And the gas company as amended in 1900?

A. Yes sir.

Q. And the Lincoln Gas & Electric Company?

A. Yes sir.

Q. The predecessor of this company?

A. Yes sir.

Q. And the reference to the entries of stock, were the transactions of the companies which the present company has succeeded?

A. Yes sir.

Q. The stock issues which you refer to are indicated to have been stock dividends are they not, or was it the sale of stock?

A. Well the last one that I mentioned, where the \$615,000 was that was in the nature of a stock dividend. The others just seem to have been an additional issue of stock without any apparent reason.

Q. Now, as a matter of fact, the sum of these two items, \$500,000 and \$450,000 represent the total stock issued in the entire history of the old Lincoln Gas Company, does it not, \$950,000?

A. \$950,000, well I don't—I could not say positively, about that.

160 Q. And the \$500,000 stock issued in 1902 paid the former owners for the original stock, which was retired, and the new issue made, didn't it?

A. Well it is not made clear on the books. If that is the case I could not say. If that is the case I do not know. There is no extension of that character noted on the books.

Q. I presume the old corporate records were not kept very good. But is it not a fact disclosed by the books, or have you examined that far to see that up to the time when the Lincoln Gas & Electric Company sold to Wood & Havermyer, in 1892, the total outstanding stock issue was \$950,000 and no more, is that not correct?

A. Yes sir.

Q. So that this issue of \$500,000 in 1892 in fact represents all of the money at that time invested in the company, now that is true is it not?

A. Well, I would not say that, no sir.

Q. In both gas and electric departments?

A. It represented more than there had been put into the company.

Q. I say it represented all that had been put into the company. If it represented more it would be included in that, would it not?

A. Yes sir.

Q. And is there any record there of the retirement of old stock, contemporaneously, by the issuing of the half a million stock?

A. There is not in the books, there might be in the minutes, of the company somewhere, but I don't find any such an entry on the general books.

Q. Was not that \$450,000 also issued in 1892, authorized?

A. I have not examined.

Q. I guess you are right about that. The \$500,000 of stock, was necessary of course to make a basis for the bond issue of
161 three hundred and thirty three thousand, and represented the total issue at that time. Now when you gave the item of expense in the electric department in the year 1904, at \$52911.26, what item made up that expense?

A. Well, I will say that I only had access to the electric light books for the space of one evening, and I did not go into the details of these expenses.

Q. Did you go into it far enough to ascertain whether or not the

gas department's proportionate share of bond interest was included in that?

A. No sir, I did not go into details at all.

Q. I mean the electric department's share?

A. (Not answered.)

Q. And in the items that you gave for the following years, did you ascertain whether or not there was carried into that expense of the electric department its proportionate share of the bonded interest?

A. I do not think it was, I think that they followed the same method in that that they did in the gas department.

Q. So that what you gave as net earnings would necessarily include sufficient to pay the electric department's proportionate share of the bond interest?

A. Well what I gave as the net earnings is just what the company gives as the net earnings.

Q. Well but it is true that as those expenses are carried on the books and extended down, they do not include the bond interest?

A. Well I do not think they do, I could not say positively, but I do not think they do.

Q. Do they include any sum for depreciation?

A. No sir.

162 Redirect examination.

Examined by Mr. STEWART on behalf of the defendant:

Q. I will call your attention to Exhibit "130" for Journal "B." is that the book that contains the stock and bond entries that you have referred to?

A. Yes sir.

Mr. STEWART: Defendant offers in evidence page 410, of Exhibit "130," being Journal B, beginning at "Undivided profits" and continuing to the bottom of the page.

Mr. ROSE: The plaintiff objects as being too remote and not binding upon the present company, and as immaterial, and not bearing upon the case that the plaintiff has made, in any way at all, and not tending to establish the value of the plant.

Q. Have you examined the books of the gas company and its antecedents, and can you state what amount of cash was contributed by the owners up to June, 1890?

Mr. ROSE: The plaintiff objects as immaterial what the owners contributed. The cost of construction from every source is the only proper basis of estimation.

A. You say in cash?

Q. Yes sir?

A. I did not find there was anything paid in.

Q. I believe you testified that the original plant was paid for by an issue, a bond or stock issue, which was it?

A. By a stock up to June 1890, the books show the amount of stock issued, to be \$175,000 of that amount \$53,700 was issued for construction, but I do not find that there was any cash paid in.

Q. Had there been any charge in the company up to that time, that is I mean to the books, run right along?

163 A. Yes sir.

Q. Regularly?

A. Yes sir.

Recross-examination.

Examined by Mr. ROSE on behalf of the plaintiff:

Q. Beginning in June, 1890, the old plant was reconstructed, was it not?

A. Yes sir.

Q. Afterwards the electric light department, added?

A. Yes sir.

Redirect examination.

Examined by Mr. STEWART on behalf of the defendant:

Q. Have you gone into the books to ascertain what was contributed subsequent to June, 1890, so that you can give that data?

A. Yes sir.

Q. Just state what that was up to the present time?

Mr. ROSE: Plaintiff objects as immaterial.

A. A little less than \$760,000—\$709,196.50.

Q. Give the items of that, and the dates, that is of the entire plant gas and electric light.

A. In June 1890 there was an additional stock issue of \$25,000.

Q. For which the company received what?

A. Well it was paid in notes, I think the notes were paid for. In September 1890 there was an additional issue of \$12,100.

Q. How was that paid?

A. That was paid in cash. And October 1890 an additional issue of \$63,344.

Q. In stock?

A. Of stock.

164 Q. How was that paid for?

A. That was paid for in cash and notes.

Q. You take it for granted that the notes were paid for there also?

A. Yes sir.

Q. Do you know how much the notes were, and how much the cash was?

A. Well it was from notes as I remember it. In 1891 and 1892 6% bonds were sold in the amount of \$333,000 for which they received that amount less \$16,397 which is commissions and expenses. In 1901 there were \$67,000 worth of treasury bonds sold at a discount of 25 per cent.

Q. That is, that was the par value, \$67,000?

A. Yes sir.

Q. Was the received in cash?

A. Yes sir, in cash, less the discount. In December 1901, there was stock sold for \$900. In 1902 and 1903 the holders of the Lincoln Gas and Electric Light Companies 5 per cent, consolidated, and

5 per cent mortgage bonds, paid in \$77,000 in cash. In 1901 and 1902 there were sold 5 per cent consolidated bonds in the Lincoln Gas & Electric Light Company, in the amount of \$64,000.

Q. Was that the par value or do you know?

A. I think that was par value yes sir. In 1904 and 1905 the company borrowed on 6 per cent notes \$100,000, and eventually took up those notes, and issued stock to the holders of it.

Q. In payment of them?

A. Yes sir, in payment of notes or in exchange for the notes. I guess the transaction took place a little earlier than that. Well it was about that time any way. In 1907 the company borrowed \$39,000 on 2 years col-ateral trust notes. And those notes are still outstanding. That makes the following amount.

165 Q. Then how much of that has been paid in on stock?

A. Well I have it pretty well mixed up here.

Q. Well I can work that out, will not ask you that?

A. I took it in chronological order.

Q. You have not traced the money out, and know what became of it?

A. Why no sir. I noticed in one case that the books state that \$40,000 worth of bonds were issued, or given out for the payment of interest coupons, and I do not know what use was made of the remainder of it.

Q. You do not know what was done with the proceeds?

A. No sir.

Q. Whether it was taken by the promoters or used in construction?

A. No sir, I have not made any attempt to trace it.

Q. Now what book are those entries found in?

A. Well these are found in—I had better give you the whole list had I not?

Q. Yes sir?

A. They are found in cash book one, Exhibit 131 Journal marked Exhibit 132 and ledger marked Exhibit 133, "A," that is series "A" which covers from March 1872 to June 1890. In cash book 134 marked Exhibit 134 in Journal marked Exhibit 135, and ledger marked Exhibit 136 in series B which covers from June 1890, to December 31, 1897. In cash book marked Exhibit 137 in Journal marked Exhibit 138, and ledger marked Exhibit 139, in series C running from January 1st, 1898, to September 29, 1900. Then in Journal marked Exhibit 140 running October 1st, 1900 to date. In a ledger marked Exhibit 141 without any mark running from October 1, 1900 to November 30, 1901 and in ledger marked Exhibit 142, number two running from December 9, 1901, to December 31, 1905, and in ledger marked Exhibit 143 "3, running from Jan. 1, 166 1906, to date.

Q. In which examination of the amount of the Lincoln Gas & Electric Light Company did you ascertain the amounts of the bills payable for the period for which you made this analysis?

A. Do you mean payable, do you mean bills payable or accounts payable?

Q. Accounts payable?

A. Why the accounts payable only at the end of the year say. Do you mean the amount of the accounts payable?

Q. Yes sir.

A. Well the outstanding accounts payable at the end of the year 1906 was about \$35,000. At the end of 1907 about \$50,000.

Q. And they run about that through the year as far as you know?

A. Yes sir, I think that is about correct.

Recross-examination.

Examined by Mr. Rose on behalf of the plaintiff:

Q. That merely represents the unpaid accounts on that particular date?

A. Yes sir.

Q. And had no reference to the amounts expended during the year?

A. No sir.

Q. It showed that the company was using at the close of the year 1906, \$35,000 of credit?

A. Yes sir.

Q. And showed at the end of 1907 that they were using \$50,000 on credit?

A. Yes sir.

Q. In addition to stock on hand that was paid for an equipment and machinery?

A. Yes sir, I might say that these bills represent the amount that has been charged into the account. It is the material account, 167 or expense account, as the case might be, or the stock account, and yet had not been paid for.

Q. That did not represent all of the stock on hand by any means?

A. No sir.

Q. It represented the unpaid portion of stock on hand?

A. Yes sir.

Q. Now going back to this stock just for a moment, did not the ledger account of stock show outstanding stock issued June 1890 of \$200,000; refer to the ledger?

A. Yes sir; I know it does.

Q. Then if the additional issue of \$500,000 had been issued as an additional issue in 1892 and the \$450,000 in 1897 if that stock had been all outstanding the total stock issue then would have been \$1,150,000 would it not?

A. Yes sir.

Q. And you have examined the book far enough to know that it was not all outstanding?

A. Well I did not pay so very much attention to the stock outstanding. I can refresh my recollection.

Q. What was the total stock outstanding January 1st, 1900?

A. I have not the books here.

Q. Well then at the close of 1892?

A. Well at the close of 1892 it showed a total stock outstanding of one million dollars.

Q. \$50,000 of that however was treasury stock and never issued, was it not?

A. I think so, yes sir.

Q. So that \$200,000 issued prior to June 1890, must have been accounted for in the entry of \$500,000 of that date, or I mean 1892?

A. It is not accounted for in that entry.

Q. Oh, it is dropped out?

A. Yes sir, in some ways it is dropped out.

168 Q. It must have been retired in some way and the books do not show definitely how?

A. Yes sir, that is it.

Q. Now can you ascertain how much was actually paid out by the corporation, in the construction of its plant up to June, 1890, or did you ascertain that?

A. Well I think there is a recapitulation of this summary and I think Mr. Stewart has it.

Q. If you don't have that handy, I will ask you another question. You don't mean to imply that the sum of \$175,000 represents, was all the money expended by the company from its organization, to June 1890 for the purpose of construction?

A. No sir, the construction in the early years was charged against revenue, every year. That is it was paid for out of the earnings or was charged off every year.

Q. So the surplus earnings of the company, in those early years was used to improve the plant?

A. Yes sir.

Q. And the earnings since 1890 that have not been applied in bond interest have been entirely used in bettering the plant, have they not?

A. Yes sir, I should say so.

Q. You found no record of any dividend after May 1900?

A. I don't know but what I have got a little confused on that. As I recall it now, up to 1887, all construction charges were written off yearly and went against the earnings and were paid for out of the profits. Since that date I don't find that there has been any charge, any direct charge, of construction against revenue.

Q. There has been no dividend since May, 1900, no stock dividends?

A. No sir, I don't think there is.

169 Q. So that whatever net surplus accumulated would still be in the treasury some place?

A. (Not answered.)

Q. Now in this case where \$40,000 of the proceeds on bonds, were used to take up maturing and defaulted coupons is it not true that the default in payment of those coupons resulted from the fact that the earnings of the company had necessarily been used in bettering the company's property?

A. Well that calls for a conclusion that I am not sure that I could draw.

Q. You could not draw that?

A. No sir.

Q. Now in the years previous when there was no money paid in from any other source except the receipts from patrons there was nevertheless large sums charged to construction account was there not?

A. You mean when?

Q. From 1900 to the present time, shows a considerable sum charged in the construction account?

A. Yes sir.

Q. A sum is charged into the construction accounts that could not have been realized either from the sales of stock or from the bonds, is that not true?

Mr. STEWART: The defendant objects as calling for a conclusion of the witness, and as assuming something that the witness is not testifying to.

Question withdrawn for the present.

Q. The items that have come into the treasury mentioned by you, aggregate about \$760,000 subsequent to June 1890, represent a total receipts from the source mentioned by you including the department of electricity as well as gas?

A. Yes sir.

170 Q. So that the \$760,000 could not be checked against the exhibits you have made here, of the gas construction alone?

A. No sir, that would include electric construction, also.

Q. Then how would the surpluses if there were any accumulations from the year 1900 be expended in case there were no dividends?

A. Well there has been a large amount of them used in the payment of interest on bonds.

Q. No, I am calling for surpluses, the surpluses from the,— and over and above the operating and maintainance expenses?

A. Well it could not be otherwise than remain with the company. It has not been paid out in dividends.

Q. And absorbed in the betterment of the plant, and show the plant to have increased in value by the amount of the surplus would it not?

A. I would think that a natural deduction.

Redirect examination.

Examined by Mr. STEWART on behalf of the defendant:

Q. Now have you any statement as to what has gone into the construction account of the electric department?

A. No sir, nothing whatever.

Q. Well I will ask you to get that if you will?

Witness excused.

Filed Jul- 6, 1908. A. D. Geo. H. Thummel, Clerk, by J. H. Clay, Deputy.

Professor EDWARD W. BEMIS, being produced and duly sworn on behalf of the defendant, testified as follows:

Examined by Mr. STEWART on behalf of the defendant:

Q. Where do you reside?

A. Cleveland, Ohio.

171 Q. How long have you resided there?

A. Seven years.

Q. What is your occupation?

A. Superintendent of the water works.

Q. How long did you hold that position?

A. It will be seven years in September.

Q. What was your occupation prior to that time?

A. For ten years from 1889 to 1899, I had been in college, work, teaching.

Q. What department and what institution?

A. Economy and history, I was at the Vanderbilt University, the Chicago University, and the State Agriculture College of Kansas at Manhattan. And then until I went to Cleveland. I was engaged in general statistical work, partly for the state of Illinois, and partly for the United States Government, doing some research work. It was largely in the line of gas, problems kindred to gas, and gas itself, street railways and electric lighting to some extent.

Q. How long have you been engaged in that work?

A. Well I have studied the problem of gas, quite a good deal since 1890, when I made some special studies on the subject and published upon it, and more particularly I should say in the last ten years.

Q. You say you have been superintendent of the water works department at the city of Cleveland for the last 7 years?

A. Yes sir, 7 years in September.

Q. Is there anything in the Superintendency of that sort of a business, that is in common with the gas business?

A. In the distributing system there is a good deal of analogy. The mains are laid very much the same way only deeper in the soil. Very much the same kind of mains. The services are somewhat smaller. In Cleveland at least we meter almost universally, and we have about 65,000 meters in use. The system is considerably analogous to the metering of gas. Of course the metering, I don't pretend to say is precisely the same, but the general system is a great deal the same. Of course the general distribution system and collection of bills, the relation of the company to the consumers, etc., is something similar to that of gas.

Q. Have you had any especial experience in investigating the matter of manufacture and distribution of gas?

A. Yes sir.

Q. You may state what this experience has been?

A. I have been employed by a good many cities in cases like this, and have appeared before the State Commission on public utility, the commission or board, particularly on state gas, of New York, many times, and likewise a good many times before the state gas commission and legislature, and the state and federal court to some extent.

Q. In what capacity?

A. As a witness.

Q. Is that the extent of your experience?

A. I was one of the committee on five of the national civic federation that made a special study of private and municipal gas works, electric light plants, waterworks, street railways, here and in Great

Britain two years ago. Was one of the committee that wrote the final report or series of reports there, they were several published.

Q. Have you had anything to do with the gas plant in the District of Columbia, and made any investigation of it?

A. I made less there than in most places. Went down there recently to appear before the congressional committee on the subject connected with the gas company, and its prices in Washington. I have done more work a good deal in many other cities than I have in Washington.

173 Q. Could you name some of them?

A. I have done a large amount of work in the city of New York, a good deal in Boston, in Syracuse, Buffalo, Saginaw, Cedar Rapids, Iowa, and Montreal, and—a good many other cities.

Q. What was the nature of that work?

A. It consisted in a study of the accounts of the company and analysis of their costs, and a general attempt to find out the reasonable costs of manufacture and distribution of gas.

Q. Now in these investigations and in this work that you have done, have you familiarized yourself with the process of the manufacture of gas, and the labor and materials that enter into it?

A. To a considerable degree it has been necessarily involved in it. Of course I have not ever been connected with gas works in a practical way, but I have been through a great many, and I was obliged to know a great deal about the work, in order to understand the costs and accounting system.

Q. And are you familiar with the make up of a gas plant?

A. Yes sir, to a considerable degree I should say I am.

Q. Now have you made any study of the question of the life, of the various apparatuses and constituent parts of the property of a gas plant?

A. Yes sir.

Q. Have you made any examination of the gas plant here in the City of Lincoln?

A. Well I have visited it here for a short time, and read most of the testimony, and heard some of it here too.

Q. And have you had submitted to you the analysis of accounts as prepared by Mr. Wiggins?

174 A. Yes sir.

Q. Have you studied and examined the reports of the gas company such as they get out annually?

A. Yes sir. You mean of this company?

Q. Yes sir, of this company?

A. Yes sir.

Q. Can you state as to whether or not those reports show as to whether the gas made previous to the adoption of what is called the quality ordinance, in March, 1906, show material difference from that, that has been made then?

A. They do show that.

Q. What difference?

Mr. ROSE: The plaintiff objects as incompetent and hearsay.

Q. Do you get that data from the gas company's books?

A. Yes sir, from their books.

Q. What do their books show in that respect to these reports?

A. Mr. ROSE: The plaintiff objects as incompetent and hearsay.

A. (Not answered.)

Q. What else have you examined?

A. I have only examined 1905, 1906, 1907. I don't find any data in 1907, but I do find—

Q. Now what comparisons did you make, 1905 and 1906, as to the quality of the gas in these two years as taken from the books of the company in their annual report?

Mr. ROSE: The plaintiff objects as being a conclusion without any data to base it on, an analysis, and is incompetent.

A. The books show the average candle power of the mixed gas for 1905, and 1906. They do not show the B. T. U. for 1905. Therefore the per cent that I have to rely upon is the candle power but that to my mind is a sufficient test. The B. T. U. varies largely with the candle power.

Q. What did their report show on that?

A. The books show that the average candle power of the mixed gas in 1905 was 17 and 15/100 candles, then 1906 it was 18 8/100 candle power.

Q. Now could you form any conclusion from that as to what the difference in heat units was, or would be?

Mr. ROSE: The plaintiff objects as no proper foundation laid, and the witness has not shown himself qualified to speak as an expert on the subject. And as having no bearing upon the issues.

A. The difference of a candle power will make about 20 points, 20 heat units.

Q. From what do you testify in giving that statement?

A. The best authority, or a very good authority I would say. I do not know as he is any better than some others on this point. But on this point there is a recent hand book for gas engineers by Latta, who quotes Professor B. Lewes of London on Page 161, and—

Mr. ROSE: The plaintiff objects as not competent evidence. The man is not here to be cross-examined, and this witness is not competent to judge as to who is the standard author on this subject. He has had no practical experience, he does not pretend to have had any practical experience, or to know what authorities are fit to be relied upon.

A. A difference of a candle in water gas will make 20 points difference in heat units, beginning with 15 candles yielding 547 gross, B. T. U., 16 candles, 567 B. T. U., 17 candles 587 B. T. U., 18 candles, 607, B. T. U., 19 candles 627 B. T. U., 20 candles 647 B. T. U., with coal gas you have a higher B. T. U. Fifteen candles 610 B. T. U., 16 candles 625 B. T. U., 17 candles 647 B. T. U. But in each case the difference of a candle makes the difference of about 20 B. T. U. of heat units.

Q. What difference there did you make?

A. About $1\frac{2}{3}$ candle, which is the difference between 17 and 15—, and $18\frac{8}{100}$, candles in the mixed gas, will make a difference of a little over 30 in the heat units. About 33 perhaps it will be about $\frac{1}{3}$ of a gallon of oil of about $1\frac{1}{2}$ cents at the price they are paying for oil.

Q. To raise the standard?

A. Yes sir.

A. One and one half cents per thousand cubic feet?

A. Yes sir, a gallon of oil ought to bring about 5 candles.

Q. So that in order to bring the standard of the gas up and raise it as it was, in 1905 and 1906, it would cost about how much?

A. About $1\frac{1}{3}$ or $1\frac{1}{2}$ cents at most.

Q. Now Professor Bemis, I wish you would give the result of your observation and experience as to the life of the various classes of property that enter into the construction of a gas plant.

Mr. ROSE: Plaintiff objects for the reason that the witness is not qualified, no foundation laid to entitle the witness to speak and as his opinion is not entitled to credence on his own qualifications.

Q. Have you investigated that question?

A. Yes sir.

Q. To what extent?

A. I have made a large number of inquiries and studied the history of different parts of plants, that were in use, and have studied the literature upon the subject. A great deal has
177 been written of it in the last 5 years in the engineering journals and engineering text books.

Mr. ROSE: The plaintiff renews his objection on the ground that the witness is not qualified, and has by his own testimony shown that he has never had any practical experience whatever, and his opinion is not entitled to be received for that reason.

A. One can divide for this purpose quite conveniently a gas plant into five classes, or five divisions. The land which has no depreciation. 2nd: The working capital, which is known, consisting of supplies on hand, that are quickly used up, or cash on hand. 3rd: Mains. 4th: The buildings and holders. And 5th: The rest of the plant outside of the benches and tools, which are renewed from year to year out of the repair account.

Q. Just proceed without further questioning?

Mr. ROSE: The plaintiff objects on the grounds that the witness is not qualified, and by his own testimony shown not to have had any practical experience whatever, and his opinion is not entitled to be received for that reason.

A. The mains have the longest life, there is practically no limit to the life of a main. So far as engineering knowledge can determine thus far. Outside of two conditions, one is some unusual degree of electrolysis, or destruction from the the soil, from the alkalies or salt in the soil, the second from the mains becoming inadequate in size from the growth of business requiring a very much larger main. Without those two causes present there is no

particular reason why a main should not last 500 years. The wear and tear on them is practically nothing, and the same is true of water mains. There is not much difference between the two in that respect.

Q. They are made of the same material?

A. Yes sir, the gas main, in a city of this character would be affected by alkalies or salt in the soil if they were largely present. I have heard no testimony indicating that that was the case. On the water mains as to electrolysis, there has been evidence as to trouble near the power house, and yet I have not heard of any evidence relating to it anywhere else to any degree—

Mr. ROSE: The plaintiff objects as being a mere speculation of the witness and hearsay.

—and I read the testimony of the company's witnesses on the subject too. As to the mains becoming inadequate there is some force in that but not thru most of the system, it is only in a few sections where mains have to be reinforced. Usually they are not taken up but a main put in on the other side of the street—

Mr. ROSE: The plaintiff moves to strike out the answer as a matter of mere presumption and as an attempt to pass upon the merits of another witness's testimony and because the witness has absolutely no qualifications to speak on the subject.

For example in our 700 miles of mains in Cleveland, which is more than any other gas company in the United States with three or four exceptions—

Mr. ROSE: The plaintiff objects to the example of Cleveland, because the witness has not shown any qualification to speak of the gas mains of Cleveland, he being connected with the water works there, and with the water works there for only seven years.

Q. What would you say then professor, from the information you have in regard to the conditions here in the city of Lincoln as to the probable life of the gas mains?

A. Well I started to say that it is customary—

Mr. ROSE: The plaintiff objects as no qualifications on the part of the witness, because he is not shown to have any knowledge of local conditions whatever.

A. It is customary to reinforce mains and not take them up, very much, thru inadequacy, and I was a little misunderstood when I was referring to Cleveland, I was referring to our 700 miles of water mains where our problem is precisely similar. We very rarely take them up and replace them, and the same thing is true with gas mains, there and all over the country I consider 75 years as a reasonable life for mains, tho' there can be considerable said in favor of 50 years, but that would certainly be the minimum, and the 75 years in my opinion would be a reasonable life unless there are extreme local conditions.

Q. Now in these other classes of property what were the next?

A. Buildings and holders; I class together; they have a life aside from inadequacy, for over 50 years, but on account of inadequacy, owing to the development of the business requiring larger holders and different and larger buildings I have usually taken 40 years, but I think in a growing town in a city no larger than this the displacement from inadequacy is more rapid than in a larger and older city, and I consider that 30 years would be more reasonable here.

Q. What was the next class.

A. The rest of the plant, I grouped together, the meters and the services, and all of the manufacturing plant, the works and other—

Mr. ROSE: The plaintiff objects to the witness expressing any opinion upon that branch of the case, because the witness is not qualified, and there is no foundation laid.

A. There of course some of it has a longer life than others, but 20 years I consider a fair allowance.

180 Q. That covers all the classes of property I believe?

A. Yes sir.

Q. From your study of the books and the accounts of the gas company, in evidence in this case what do you find as to the relative costs as to the water gas and the coal gas?

Mr. ROSE: The plaintiff objects as incompetent and the witness is no- shown to have possessed himself of sufficient knowledge, and he is not entitled to speak on the subject.

A. In the report for 1907 the company gives the cost of coal gas in the holder at 62 9/10 cents, and water gas at 39 51/100c.

Q. And the costs of other years too?

A. In 1906 the company give coal gas at 54 26/100 and water gas at 41 95/100; in 1905 coal gas at 40 77/100 water gas at 40 95/100.

Q. You may explain why when water gas is so much cheaper that coal gas should be manufactured at a higher price?

Mr. ROSE: The plaintiff objects for the reason that the witness is not qualified to speak, and is not shown to have had any practical knowledge, and not shown to have any knowledge of local conditions that might enter into the problem at Lincoln.

A. The chief reason that I can see is the lack of adequate holder capacity so that they could rely wholly on their water gas, but that would only apply in the winter season during $\frac{3}{4}$ of the year I should suppose that they should make a very much larger quantity of water gas, relatively than they do now. But if they give up their gas, coal gas, entirely they would have to buy generating fuel for the water gas, but they could make considerably less coal gas without doing that if they sold some coke. In the testimony of Mr. Honeywell

181 I noticed—

Mr. ROSE: The plaintiff objects to the rest of this answer in regard to Mr. Honeywell's testimony, because it is already in, and incompetent, and not competent for another witness to pass upon the merits of another witness's testimony, and no hypothetical question has been given to the witness.

A. I notice that he said that if he did buy their generating fuel they would have to pay from \$1.50 to \$1.85 a ton more for it, than when they obtained it from the coal gas, that was on page 101 of the testimony.

Q. How would that effect the price?

A. Taking the figures that I have before me, I think that was the year ending June 30, 1897 at that time, namely 41 7/10 lbs. of generating fuel per thousand feet of water gas—

Q. And that is what is shown by their apportioning?

A. Yes sir; then a payment of \$1.85 more a ton would mean that 41 7/10 lbs. would be three and 86/100 cents, or about 4 cents more than the generating fuel costs them now.

Q. Per thousand feet?

A. Yes sir, per thousand feet.

Q. Now that would make how much of a saving in the manufacture of the gas?

Mr. ROSE: The plaintiff objects as incompetent, and no foundation laid.

A. The average price of the mixed gas in 1907 at the holder, was 48 8/100 cents, while the water gas was 39 51/100. If no coal gas was made then that 39 51/100 cents would be increased by this extra payment for coke to about 43 4/10 cents, and there would still be a saving of about 4 6/10 or 4 7/10 cents.

182 Q. That is per thousand cubic feet you are testifying to?

A. There might have to be a cent's worth more of oil added to keep the B. T. U. up to standard, but there would be I think a saving of 4 cents, but I would not necessarily say that coal gas could be entirely dispensed with in the middle of the winter until they had more holder capacity, but by making it lesser than they do now, and in most of the year they could certainly save 3 or 4 cents I think.

Q. What is the capacity of their holder?

Mr. ROSE: The plaintiff objects for the reason that the witness is not competent to answer.

A. The company has told me that one holder is 50000 and the other is 200,000 feet.

Q. And what capacity should they have for a plant of this size?

Mr. ROSE: The plaintiff objects for the reason that the witness is not competent to answer, and incompetent and no foundation laid.

A. With a combined coal and water gas plant, they should have about 2/3 of their maximum day's output, one day's output is about 850,000 feet, or there was one day last December when it reached somewhat in that neighborhood, so they ought to have about 500 to 600 thousand feet. I think an extra 500,000 foot holder would not be amiss in addition to what they have got. But even without that I believe they could make less coal gas than they do, and more water, gas, and therefore cheaper.

Q. Can you state what the normal amount of tar and coke could be produced per ton of coal?

Mr. ROSE: The plaintiff objects for the reason that the witness is not qualified to answer, and no foundation laid.

A. Yes sir.

183 Q. What is the normal amount?

Mr. ROSE: The plaintiff objects for the reason that the witness is not qualified to answer, and no foundation laid.

A. The normal amount of tar is about 12 gallons per ton of coal carbonized,—8 I believe is what they get here.

Q. You heard Mr. Honeywell's testimony about letting it run out and run away, and letting it run to waste?

A. Yes sir, I heard him say about letting it run to waste.

Q. And what is the normal amount of coke, produced per ton of coal carbonized?

Mr. ROSE: The plaintiff objects for the reason that the witness is not qualified to answer, and no foundation laid.

A. Not far from 1250 pounds which they get here, and some places 1300 where they get a little more.

Q. Is there any other residual?

A. Am-onia is obtained in some works, all larger works get it, even works of this size get — sometimes.

Q. But that is not saved by this plant?

A. No sir. Some carbon is beginning to be saved in works of this size too.

Q. What is the normal per cent of leakage, or unaccounted for gas generally speaking?

Mr. ROSE: The plaintiff objects for the reason that the witness is not qualified to answer, and the question does not take into account the local conditions.

A. About six per cent. About 150,000 feet per mile of mains is the average of companies of this size in Massachusetts—5 per cent I mean, or about 150,000 feet per mile of mains, about one half of what they have here.

184 Q. What conditions tend to increase this leakage?

Mr. ROSE: The plaintiff objects as immaterial irrelevant and incompetent, and the witness is not qualified to answer.

A. One very common cause is high pressure, the mains not being sufficiently inforced to take care of the growth of the town, they put on very high pressure at certain hours, which has its effect on the mains, and on the burners, on the leakage; and of course another occasion, is the lack of sufficient attention to the mains, barring for leaks etc.

Q. What is that?

A. Running a bar down to discover where the gas is leaking up.

Q. How would that abnormal leakage be remedied on this undue pressure?

Mr. ROSE: The plaintiff objects as immaterial irrelevant and incompetent, and the witness is not qualified to answer.

A. So far as it is due to pressure, of course it is remedied by having high pressure mains, that are common nowadays, or large mains going out to supplement the distributing system at the outer rim, and of course by paying more attention to the repairs, and the condition of the mains, if it is due to that.

Q. Is there any of these high pressure mains or supporting mains in this plant?

Mr. ROSE: The plaintiff objects as incompetent irrelevant and immaterial, and the witness is not qualified to answer.

A. No sir.

Q. Are they common in plants at the present time?

Mr. ROSE: The plaintiff objects for the reason that the
185 witness is not qualified to answer, and no foundation laid.

A. Yes sir, it is quite common.

Q. You spoke about the leakage in the state of Massachusetts, do you speak of that simply as an illustration, or is it different in different localities generally.

Mr. ROSE: The plaintiff objects as incompetent, irrelevant, and immaterial.

A. It is not different in regard to the low amount of leakage from any other cities that I have had occasion to study, but it is easier to quote it, because that — the only state in the country that requires, and has for 20 years required the return on that subject, a sworn return, and those are published every year in their annual reports, so they and the English companies are the only places you can go for public sworn information on such points.

Q. Such other information you would get would be by observation?

A. And in connection with individual cases and individual plants where one may happen to be able to see the books, yes sir.

Q. And have you investigated that question as well as this other too, that you have been testifying in regard to, in these other plants that you have mentioned before?

A. Yes sir, that has always been an important subject in all gas cases.

Q. You spoke about the blowing of the gas, what is it that occasions that, this excessive pressure?

A. Yes sir, especially if it is fluctuating. A burner will be adjusted to a pressure of say 3 inches and if the pressure goes up at certain hours to 5 or 6 or 7 inches the burner will blow if it is not turned down. A great many do not bother to go near the burner or they may have to go near it frequently, pressure fluctuates
186 frequently.

Q. That you say is occasioned by the mains being too small?

Mr. ROSE: The plaintiff objects as incompetent and for the reason that the witness is not qualified to answer.

A. Yes sir, that is the indirect result, it is not the direct result, it is the result in this way. The main being small, then in order to have any pressure at all at certain hours, when a great deal of gas is being used the gas has to be sent out from the works at a very high pressure. And then at other hours the pressure can be reduced.

Q. What is the usual extremes of pressure in a properly equip-ed gas plant?

Mr. ROSE: The witness objects as incompetent, the witness not having shown himself qualified to answer.

A. From 1½ inches, is the minimum, to about 4 inches, is the maximum. Sometimes it is allowed to run up to five but that is considered to be rather poor practice.

Q. Have you made any study of the question of the effect of the increase of the output on the earnings of a gas plant?

A. Yes sir.

Q. A plant in size similar to this at Lincoln?

A. Yes sir.

Q. You may state what that effect is?

Mr. ROSE: The plaintiff objects as incompetent and immaterial and because the witness is not qualified to answer.

A. I have studied the effect in scores of companies that is I have studied the effect in every company in Massachusetts, in the last 20 years, where I had an opportunity in their files to study it, the files of the gas commission.

187 Q. What is the result of the increase of the output on the earnings ordinarily?

Mr. ROSE: The plaintiff objects as incompetent and immaterial and because the witness is not qualified to answer.

A. Ordinarily the year after the reduction is made the profits are found to have fallen not over one half of what one would have expected from the basis of the previous years' business. That is suppose a reduction were made in 1908 the net earnings of 1909 have not fallen more than one half as much as you would expect from the condition of business in 1907. Because there is such increase in out put from the reduction in price usually without a corresponding increase of expense.

Q. That is suppose, take an increase of 20c. per thousand as an illustration—

A. You mean a decrease?

Q. Yes sir a decrease of 20c. a thousand cubic feet per thousand as an illustration, in the year 1908 would the earnings decrease by that 20c. per thousand during the year 1909.

Mr. ROSE: The plaintiff objects as being purely speculative, and as no scientific or reasonable hypothesis upon which it can be resolved, and also because the witness is not qualified either by scientific research or by practical experience to speak.

A. Well I found the general result was that a decrease of 20c.

would mean a decrease in net earnings of only from ten to fifteen cents per thousand feet in the following year.

Q. And you say you have studied the effects of such reductions in a great many instances.

A. Yes sir.

Witness excused.

It now being 5 o'clock, an adjournment was taken until tomorrow morning, May 9, 1908, at 9 o'clock a. m.

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9:00 O'CLOCK A. M., May 9, 1908.

Parties met pursuant to adjournment and the following proceedings were had and done:

Prof. EDWARD W. BEMIS recalled and direct examination resumed.

Examined by Mr. STEWART in behalf of the defendant:

Q. Prof. Bemis, I want you to take up the question of depreciation again and state what you consider is the fair and reasonable rule to be applied in this case to allowance for depreciation? Now if you would go through the subject without being interrogated on each point I will be much obliged.

Mr. ROSE: The plaintiff objects as because the witness is not qualified to answer, and no foundation laid.

A. The first matter is to determine the probable life, the average life, of each particular class of property. Suppose that the mains were taken at 75 years, then $1/75$ of this value of the mains might be said to disappear each year, yet the mains are nearly as useful right through until near the end of the 75 years when they will have to be discarded for inadequacy or some break, so that the expenses of meeting this depreciation that will come in the form of the renewing of the mains is not felt until the end of the time. We assume ordinary repairs to be made as is usual in all gas companies from year to year. I am now talking about the ultimate renewals due to the depreciation and which cannot be taken care of by ordinary repairs. As I said the expense of such renewal comes at the end of the life. The problem, therefore, is as I look at it how to secure the money for renewing the main at the end, or the time it has come to be renewed. Say at the end of 75 years or 50 years, or whatever
189 be taken as its life, and I cannot conceive a fairer method than the sinking fund method namely: what sum yearly must be set aside so as to equal the principal or value of the main at an agreed rate of interest in the sinking fund, say 4 per cent. or 5 per cent. at the end of the life of the main. Take an illustration of this kind suppose some piece of property has a 40 year life, many buildings have that life, now you may say that $1/40$ of the value of the building disappears every year. If, however, you ask the gas consumer to pay $1/40$ of the value of that building back to the company every year, the company has an opportunity to invest that in

its plant at more than sinking fund rates, or at the worst it can put it in the savings bank and loan it out at sinking fund rates, and even at four per cent. interest, its full value paid in 40 year annual installments would make, at the end of the time, $2\frac{1}{2}$ times the principal. That is if you had a building worth \$100,000 and you assumed that it has a 40 year life, and therefore loses \$2500 a year, and the gas consumer pays \$2500 a year to the company the consumer will pay apparently \$100,000 at the end of 40 years but the company will have \$250,000 to show for it. If it merely gets 4 per cent. out of that investment in its own plant or in a sinking fund it would undoubtedly put it into the plant or in the sinking fund *it would undoubtedly put it into the plant* and make more than 4 per cent. Why should not the consumer have the benefit of that extra \$150,000? It seems to me that if the company gets \$100,000 at the time it needs to use it, when the buildings needs renewal at the end of the 40 years it has been recouped for all its loss, and \$1000 a year instead of \$2500 a year in a 4 per cent. sinking fund.

190 will make \$100,000 at the end of 40 years; the difference being that the consumer keeps the profits of the investment instead of the company. Therefore, it seems to me that the sinking fund method is the proper method for financing depreciation. The depreciation is assumed to be 1/40 but the amount necessary to finance it in the illustration I am speaking of would only be 1/100 a year.

Q. Now applying that method to the plant of the Lincoln Gas & Electric Light Company, what would you say would be a reasonable allowance per annum for depreciation assuming the valuation given by the expert Mr. Malone to be the correct valuation?

A. That valuation, as I understand it, is the one I have before me which totals \$550,272.72, and adding a working capital, and certain overhead charges such as engineering and interest, the costs of obtaining money, in other words, I understand you are asking in regard to that figure?

Q. Yes sir.

A. The first thing necessary is to divide that into classes that have a different average life which I have done. I have excluded the real estate, the land \$7,200, that leaves \$543,072.72. Then the mains in dirt streets and in paved streets are given by the company at \$220,605. The buildings are given as \$37,286 and the holders with the tanks are given at \$33,675, making \$70,961 for the buildings and holders. The balance of the investment I grouped together in a class by itself, meaning the manufacturing plant and the meters and services and everything not included in mains, buildings and holders, and that is \$251,506.72. Now I applied 75 years' life to the mains, and 30 years to the buildings and holders and 20

191 years' life to the rest. Now the amount necessary to put into the sinking fund that will redeem the principal in 75 years, if you take 5 per cent as your sinking fund charge, which I believe is proper in this part of the United States where interest is a little higher—New York I should take 4 per cent sinking fund—but a 5 per cent sinking fund charge would only require per year 13/100 of 1 per cent, it seems very small and yet the accountants' tables

agree there is no doubt of the accuracy I think of the result that means per year on \$220,605, on mains only \$287.79. Assuming the life to be as I say 75 years. Now it is very much higher when you get to the rest of the plant with its shorter life, the part of the plant having 30 years' life would require $1\frac{51}{100}$ per cent per year the result for the \$70,961, value claimed by the company for buildings and holders is \$1,071.51 a year, on a 30 year life. The rest of the property \$251,507, in value on a 20 year life would require $3\frac{2}{100}$ per cent a year or \$7,595.51. The total required for the three classes of property then becomes \$8,953.81, which on the basis of 179,366,000 feet of sales in 1907 is about 5 cents per thousand feet, it does not vary $1/100$ of a cent from that so I will call it exactly 5 cents per thousand feet. If however the mains be taken at 50 year life instead of 75 years then the amount to be set aside yearly will be $48/100$ of one per cent instead of $13/100$ which will add \$500.50 a year or 28 cents a thousand feet of sales last year to this amount making 5 and $28/100$ cents. That is on the company's showing or claim of values.

Q. I think you said 28 cents?

A. 5 and $28/100$ of a cent I meant to say.

192 Q. Now taking the valuation as shown by the witnesses Deffenbaugh and Jensen on the mains and buildings and assuming the company's valuation on the other items have you figures on that basis that you can give?

A. Yes sir. I want to correct my previous statement first to say that the addition for the shorter life of 50 years instead of being $28/100$ of a cent is $43/100$, $5\frac{43}{100}$ cents then becomes a proper depreciation charge on the basis of the company's values. Now with regard to the lower values I have that—

Q. Now excuse me. In computing this depreciation have you assumed that the depreciation is the paving that covers the mains which has been included in the company's valuation?

A. I did so I gave the company the benefit of everything that they claimed. The only thing that I did not include in their claims is their allowance of about 10 per cent for engineering and interest, perhaps in order to give them everything that they claim that should have been added to this result, then there is the cost of obtaining money that they have also.

Q. You need not include that?

A. And about 10 per cent for engineering and contingent expenses would bring this whole up to about 6 cents.

Q. Now take your other valuations if you have them?

A. Mr. Deffenbaugh gave the mains at \$143,000 aside from the paving if I understood him correctly. At 75 years' life it would require per year \$185.90 then for the buildings and holders, I took

193 \$20,000 for the buildings as approximately the testimony of the present value of the buildings, as I understood it that was given by one of the cities' witnesses yesterday or day before for the gas buildings aside from the electric light after allowing for depreciation, about \$20,000 as I understood it. And for the holders I took \$15,300 for holders and tanks, or \$60, per thousand feet of capacity which is high, considering their age and the condition, and

then I would have a total for buildings and holders on that basis of \$35,300 which at $1\frac{51}{100}$ per cent for 30 years' life means yearly \$35,300. Then the rest of the property was \$211,893, excluding the paying and excluding the land as before and that at $3\frac{2}{100}$ per cent would yield \$6,399.17, this makes a total depreciation on this basis of \$7,118.10 yearly, or $3\frac{97}{100}$ per cent, practically 4 cents on the output of 1907?

Q. You said cents per thousand feet?

A. Yes sir, of the output of 1907. How for 50 years by taking as the life of the main in that computation, everything else remaining the same it would add $28/100$ of a cent per thousand feet of sales or makes a total depreciation of $4\frac{25}{100}$ cents per thousand feet of sales in 1907.

Q. Now that is all you have on that is it?

A. I might say something in justification of using these figures of valuation.

Q. What have you to say on that? On what do you base those valuations?

A. Well, take first the holders, they have two holders, one of 205,000 feet, that is about 18 years old and which they have valued at \$118.53, per thousand feet of capacity and the other of 50 thousand feet which is over 20 years old which they valued at \$187.50 per thousand feet of capacity including the tank. Now those 194 holders have depreciated more than $\frac{1}{2}$, that is more than half of the 30 years I have allowed them has expired, $\frac{2}{3}$ of that and fully half of their valuation has gone. Half of the value required in the sinking fund is gone and I allowed them \$60 a thousand feet which I considered a liberal allowance.

Q. Are you acquainted with the value of holders now and the costs of construction?

A. Yes sir, they run according to size from \$60 a thousand feet for five million foot holders, \$60 or \$75 according to the price of iron, up to \$200 for the 50 thousand foot holder, it varies somewhat with the part of the country and somewhat with the prevailing price of iron; but a 500,000 foot holder could generally be erected for \$125 per thousand feet of capacity.

Q. And a 200,000 foot?

A. A 200,000 foot about \$150.

Q. Now go on with your other statement?

A. In the past we have erected for less than that when iron was cheaper. With regards to the mains the estimate of Mr. Deffenbaugh of \$243,000 which I used, appears to be higher than what it has cost the company.

Q. What do their reports in evidence here show?

A. The last three annual reports of business for 1905, 1906 and 1907 show the following facts: first in regard to their two inch mains, in 1905 their two inches mains cost them $23\frac{6}{10}$ cents a foot including labor and material. In 1906 it cost them $19\frac{3}{10}$ cents a foot, and in 1907 $21\frac{2}{10}$; and I took the $21\frac{2}{10}$ cents and applied to the entire length of the two inch pipe. Then 195 with regard to the 4 inch the price per foot was $27\frac{8}{10}$ per foot for labor and material in 1905, $51\frac{2}{10}$ cents in 1906,

and there was one laid in 1907. I took 51 2/10 as the basis. With regard to this 6 inch the only pipe they have laid in the last three years was in 1906 when it was 68 2/10 cents. I have used that figure for all their six inch pipes. With regard to the 8 inch the only pipe they have laid in the last three years was in 1905, when it was 88 3/10 cents and I have used 88 3/10 cents for their entire main. I may say that the price of iron pipe this year is lower than it has been for several years all over the country. Now I had no figures for the 10 inch, 12 inch, 16 inch, and 20 inch pipe but there is very little of it, and the prices for the 2 inch 4 inch 6 inch and 8 inch are remarkably close almost within 10 per cent of the figures given by the company under oath at Cedar Rapids in a case a few weeks ago, so I have taken for the higher sizes the larger sizes, the Cedar Rapids figures that the company itself gave, namely Cedar Rapids gave for 10 inches, a foot, \$1.13½; I have taken here \$1.20. For the 12 inch they gave \$1.45 at Cedar Rapids I have taken it \$1.50 a running foot. For 16 inch at Cedar Rapids \$2.07, here I have taken \$2.15. The 20 inch they did not have any in their system, but I have taken \$3.00 as a rather high approximation. Applying these results to the system the total is \$127,269.80, that is compared to \$143,000 of Mr. Deffenbaughs.

Q. Have you had any experience in the matter of laying mains to know the costs?

A. Yes sir, but I have not applied definite figures on water mains to the situation here because they are laid so much deeper, 196 6 feet we lay our mains from the top of the ground and our services the same to protect them from frost, that is deeper than most water companies lay and I have thought it much more correct to take the company's own figures for gas pipes.

Q. Now on the question of services have you examined the reports of the companies to ascertain what the costs of the services has been to them?

A. In 1907 they report a net cost of \$8.55 after deducting some receipts from consumers for part of the services, an average for all they laid in 1906 they give in their report at \$8.27, and in 1905 it is higher. That is as far back as I have had time to go. In fact I asked for the other reports this morning but I think they have not got them ready.

Q. Just give the 1905 and that will be sufficient?

A. It is given as \$12.06 per service in 1905, they did not receive as much from consumers that year. Some years they receive from consumers a larger amount than other years. I was going to say a word about the size of the street mains.

Q. I wanted to ask you in regard to the efficiency of the Lincoln Gas & Electric Ligh Company's plant as to its efficiency?

A. Well as to the manufacturing plant they appear to have a coal gas plant, and I have learned since my testimony yesterday that they are putting up a 7 foot 6 set of water gas which will so largely increase their capacity that it will render possibly unnecessary the extra holder I spoke of, and would allow a larger amount of water gas compared with coal gas. With regard to the mains the system is in a very poor shape as illustrated by this fact: Out of 338,594 feet of

197 mains, 220,705 feet is 2 inch, which is 65 2/10 per cent of the total. I do not know of a company, I don't think I have ever come across a company that has so large a per cent of two inch main. This morning I have gone through the entire 60 companies of Massachusetts on that point as given in their last annual report, and I think there is not one that has 50 per cent of all its mains, as high as 50 per cent—in 2 inch mains, or anything under 4 inch mains.

Q. Well what is your observation in regard to plants generally as to the size of mains required for efficiency?

A. The whole tendency of the gas business is to discard the two inch mains. They would be written off in many places as having very little value, on account of the size, they have become inadequate to a considerable degree, it requires such high pressure to force gas through them and keep up the pressure in a city, especially at certain hours of the day.

Q. And in what way does that effect the efficiency of the system, the necessity of keeping up this high pressure?

A. It increases the leakage and also increases dissatisfaction among consumers on account of the unequal and high pressure.

Q. Causing what you term blowing?

A. Yes sir. That of course will increase the gas bills without a corresponding increase of light and heat.

Q. Well how is that effected?

A. Why, when the pressure is high and the burners are not turned down and adjusted to that high pressure the gas will go through the burner without giving its full illuminating or heating value. It will register in the meter just the same but it does not give the benefit to the consumer. Such a high pressure may be almost a necessity however with —. When I was speaking of the life of 75
198 years on mains, I assumed mains of the ordinary size. I think this two-inch pipe has practically lost four fifths of its value already, on account of inadequacy, that is, with reference to the ordinary sizes of four-inch, six-inch, eight-inch, and upwards, that the longer life is predicated on.

Q. That is of the smaller mains on account of the necessity of their being replaced?

A. Yes sir.

Q. It makes the life shorter?

A. Yes sir; they have been discarded long ago by most companies. They are not being put in very much by most companies, except in alleys in a few neighborhoods that do not use much gas.

Q. Now, what would you say in regard to the operation or management of the company as to its efficiency, as shown by the reports here in evidence?

A. I have observed in the coal gas plant some increases of cost which are very hard to explain, and which I can not explain. In the last two years, for example, retort house labor has increased from \$5.24 per thousand feet in 1905, to \$8.18 per thousand feet of coal gas made in 1907, or nearly 60%; but wages of the stokers which were two dollars and two dollars and twenty-five cents a day in 1905

are all two dollars and twenty five cents a day now, has not increased that over ten per cent.

Q. Where did you get the statement in regard to wages?

A. Mr. Wiggins told me that was in the books.

Mr. ROSE: The plaintiff moves to strike out the answer as hearsay.

WITNESS: The failure to save tar and am-onia—the failure to save all the tar, being a yield of about only eight gallons instead of 12 gallons to the ton of coal carbonized, and the failure to save any am-onia is evidence of either lack of facilities, lack of plant, or something else, which would be remedied I think in many companies; and even if the tar is only valuable for heating purposes it is better to save it for that than it is to let it run to waste. There are some other items in the matter of charges, but they do not relate, as I know of, to management.

Q. No matter of charges, what do you mean, charges for what?

A. Residuals; this excessive leakage has been referred to, of course.

Q. What is the normal leakage?

A. From 5% to 6%.

Q. And the leakage of this company is shown at what?

A. 11.84% last year. It was as low as 6.84% in 1903 and has been rising until it reached, in 1906, 16.56% and then it fell to 11.84% in 1907.

Q. Did I understand you to say 5% or 6%?

A. From 5 to 6% of the gas made.

Q. Have you any references there to the matter of promotion charges expense?

A. Yes sir.

Q. What is the usual or considered a proper expenditure for promotion of new business?

A. Three cents a thousand feet. It has been much more here but it has produced good results doubtless, in developing new business. Last year it was 7.47 cents but I would not expect in the future that it would exceed 3 cents.

Q. Have you testified in regard to the effect of reduction of price on the extension of the business, and increasing the business?

A. Yes I testified to that yesterday.

Q. And what is your opinion, that a reduction in the price of gas would render unnecessary the expenditure of so large a sum for extending the business?

A. Yes sir, that is to be strongly taken into account, the reduction in price itself will advertise the business and induce a considerable increase of gas as a substitute for coal in heating and coal purposes.

Q. Now have you any other item, have you investigated Prof. Bemis the question of the items of working capital given by the witness Malone to ascertain whether or not it shows the real status of the plaintiff company?

A. The working capital is given here as \$59,146.88, but the testimony of Mr. Wiggins as was that about \$50,000 was owing by the company in bills payable. I mean in accounts payable, and I assumed without interest, for supplies and materials, which is a credit

enjoyed by the company and to that extent is a balance or set-off against the working capital to the extent to which the company gets capital free of charge from those from whom it buys supplies, to that extent it should be set off against the supplies on hand, and their working capital.

Q. This \$50,000 of accounts payable, do you know whether that applies to the entire plant, or just to the gas working department, or has that been shown?

A. I don't remember whether it has been shown or not, but if it applies to the plant as a whole only two thirds of it, probably, would apply to the gas department, and then that would leave for the gas two-thirds of \$50,000 or \$33,000.

Q. How about the items of stock on hand there, coke, for instance, have you examined to see whether the business shows that to be correct?

A. I have only examined to observe that it was much higher at the end of 1907, than it was at the end of 1905 and 1906 or
201 in June, 1906, or June, 1907.

Q. What was much higher?

A. The amount on hand of coke.

Q. How does it compare with Mr. Malone's figures, or have not you looked that up?

A. I have not looked that up.

Q. Was there any other item now in connection with the plant?

A. I was going to summarize the additions and deductions for operating cost.

Q. Based on your testimony?

A. Yes sir.

Q. I will ask you to do that.

A. Starting with the amount that the company gives as its operating cost, starting with the receipts of the company in 1907, from gas when the price of gas was \$1.20, the books show that the net receipts were \$1.20 and .31 of a cent after deducting losses from bad debts, adding the amounts received from those who paid a minimus charge, but did not use the full amount of gas, and after adding forfeited discount show if the price were reduced to \$1.00 the price included the forfeited discounts, etc., and deducting losses on the bad debts, it would be at the same ratio of \$1.31, and taking off 2.5 cents more which I understand is a new tax, that has been lately imposed, it would be reduced to 97.81 cents. The company claims operating costs in 1907 of 79.12 cents there would be a margin of 18.69 cents, to this should be added the savings from three items: 1st: Promotion 4.5c; second: A reduction of unaccounted gas by 40 per cent still leaving it about 7 per cent, which is higher than I have considered reasonable, that would be a reduction of 2 cents; and third I notice that the legal expenses in 1907 were 1.2 cents per thousand feet of gas sold, or half a cent higher than the average of the previous four years which were as follows: 1903 74c, 1904, 71c; 1905, 45c; 1906, 49c. I believe I added in 1902 which was
202 1.01c and found the average of all five years was about one half cent lower than the 1.2 cents in 1907. I assumed that

the normal expense would be indicated by the average of those five years, and considered a probable saving in the future of one half cent there, which would mean a total from promotion, leakage, and legal expenses, of seven cents. That there are questions of residuals which I have looked into a little, but unfortunately, it was not possible for the company to give me the data until late last evening, and I did not have the full time that I had hoped for, but I did discover in hasty examination the following matters on residuals: In 1907 the company sold 21,175 gallons of tar for \$1,404.44, or at the rate of 6.13 cents a gallon. They used in the various parts of the work 93,353 gallons which they claim was worth only \$1,900.99 or \$2.03 cents per gallon. The entire expense of handling the tar whether sold or used was \$617.89, or .54 of a cent a gallon for all the tar sold or used, or about 2½ cents a gallon if concentrated upon the tar sold. If it is concentrated upon the tar sold then they netted from that 4-19.100 cents per gallon. Now the total receipts from tar sold was \$1,404.44 less the total expense on all of the tar \$617.89 cents, leaving a net on sales of \$886.55 and the value of the tar used at the works, mostly was 2 cents a gallon, \$1,909.99 makes \$2,787.54 credit for the value of residuals from tar of only \$1,248.26—wait a minute I shall correct that, \$1,316.96—. My first figure was correct but I thought it was wrong because I picked up the 1906 report; but in 1907 it was as I originally gave \$1,248.26. In other words

203 the company appears to have received from the tar sold, less the expense of handling, plus the tar used for making steam in the electric light department even at only 2 cents for it a gallon, \$1,539.28 more than the coal gas department, or the gas department in general was credited with receiving which is about 1 cent per thousand feet of all the gas both coal and water gas made. It cannot be accounted for by any large difference between the tar used and sold and the tar made for there is not any large difference. The tar made during the year was 108,263 gallons and the tar used or sold 114,728, a very slight difference of only 6 per cent, which cannot account for this discrepancy. In other words by charging the whole thing to stock, as the way they do and making such an arbitrary charge for residuals, they make the costs of gas last year about ¾ of a cent higher than it should be as I read the books, based on the tar account. With regard to coke residuals I also find this, for 1907 that they obtained for the coke they sold and the breeze \$6,492.70, and all of the expense of taking care of the coke whether sold or kept at the works is \$2,902.13, leaving a net profit on the coke sold or even concentrating all the expense on that, which of course ought not to be done, to \$3,590.64. The value of the coke used by the company in its water gas and electric light department and elsewhere, is given as \$18,755.02, or a total profit from the coke of \$22,345.66. But the company credits itself on coke residuals at only \$20,537.73. Again showing the difference of the \$1,807.93 or about one cent per thousand feet of gas sold of value of coke, that appears to be more than appears to have been credited to the gas department so there is a 1¼ cents, which appears to be borne

204 out by the records of the books on such a hasty examination as I was able to make after getting the report. If I added that

in, $1\frac{3}{4}$ cents, that makes $8\frac{75}{100}$ cents of possible profit, the 7 cents that I added in to $1\frac{75}{100}$ cents being already referred to as $4\frac{5}{10}$ cents for promotion two cents for leakage and $\frac{5}{10}$ of a cent legal then adding the 8 and $\frac{75}{100}$ cents to the 18 and $\frac{69}{100}$ cent gives 27 and $\frac{44}{100}$ cents margin of profits, less the depreciation charge which I have referred to this morning.

Q. Now let me interrupt you there, I do not know whether you have gone into it or not, have you examined the reports of the company so far as the question of the increase in the retort house labor is concerned?

A. I omitted to say that yes sir. The retort House Labor. Well, I referred to it but I omitted it in my last summary. That retort house labor increased in 1907 over 1905 to nearly three cents per thousand feet of coal gas made and that would be an increase of about $1\frac{1}{4}$ cents, if distributed over both coal and water gas, and should be added in. If we take as a basis the reasonableness of the 1905 figures plus even 10 per cent increase in the stokers' wages, it would make this margin $28\frac{69}{100}$ cents, a margin of profit, and at gas at \$1.00 but from this must be deducted an allowance for depreciation which as I estimated this morning was from four cents according to my estimate of value, a 75 year life for mains, to six cents with the company's allowance for values and 50 years' life of mains, so it would leave $24\frac{69}{100}$ cents margin to $22\frac{69}{100}$ cents margin per thousand feet as true profit after allowing for depreciation.

Q. What would you say as to that being a reasonable profit 205 for the complainant to earn on its investment?

Mr. ROSE: The City objects as entirely too remote and taking a speculative shot at the future years that are undeveloped, and intervening years have shown different from actual experience, and also for the further reason that the witness is not qualified to answer and no foundation laid.

A. The total dividends and interests paid out last year by the eleven Massachusetts companies selling over 75000 feet, excluding Boston as too large for proper comparison, was 23 cents per thousand feet.

Q. Did you say 75000 feet?

A. 75,000,000. I will repeat; the total interests and dividends paid out by the eleven Massachusetts companies having over 75,000,000 feet of sales exclusive of Boston was 23 cents last year. But this plant has a much lower capital structural value than many plants because of the great amount of two inch pipes, the very small amount of holder capacity, and the age of it, and a large proportion of water gas plant which is much cheaper to install than coal gas, from all of those causes the plant here would have a lower structural value per thousand feet than many eastern companies. A structural value of $\frac{1}{2}$ million dollars would only be \$2.50 per thousand feet of sales and even \$600,000 would only be about \$3.00 per thousand feet of sales, assuming sales to be next year 200 million at a rough figure, and of course 7 per cent of \$3.00 is only 21 cents and 7 per cent of \$2.50 would only be $17\frac{1}{2}$ cents a thousand feet.

Q. And correspondingly lower at the rates of 6 per cent or 5 per cent?

206 A. Yes sir. I used 7 per cent on the theory that rates are a little higher here than in Iowa or in the east where I have always used 6 per cent.

Q. We have no evidence in the case here as to current rates?

A. No sir. 6 per cent is what I have always used as the basis.

Q. Now I believe that covers the subject that I have questioned you about unless I have overlooked something?

A. Did you get the pressure records this morning?

Q. No, I believe not, I sent word for them to be here.

Q. You have heard the testimony in regard to the complainant's company charging off for reconstruction reserve \$1000 a month on its gas and electric light plant given by Mr. Wiggins, did you?

A. Yes sir.

Q. Taking the gas plant as being $\frac{2}{3}$ of the entire plant that would leave the reserve at \$8000 that should be charged off to the gas plant, \$8000 a year, and that is approximately the figures that you allowed for depreciation?

A. Yes sir, I allowed \$7000 on my estimate, and it would be over \$9000,—it would be about \$10,000 on the company's valuation; taking it at \$10,000 on the company's valuation and 50 years' life, and about \$7000 on my valuation and 75 years' life.

Q. Now reconstruction reserve is that considered synonymous with depreciation?

A. Precisely it is and is intended to meet that, that is simply a longer definition of the thing.

Q. Could there be any other contingency than such as you have indicated here that a reconstruction reserve would be called for?

207 A. You can of course imagine earthquakes and cyclones but they are so extraordinary that they can hardly be considered within the grounds of reasonable calculation.

Q. What about the discovery of natural gas?

A. There — not, according to the edition of Brown's Directory just out, a sort of an official compilation of all gas companies in the United States, there is not given a single natural gas company in the state of Nebraska which indicates that that contingency if it exists is exceedingly remote. About the age of the plant I intended to refer to the fact that the figures of costs Mr. Wiggins testified to yesterday, giving the amount of construction each year since 1872 shows that half of the plant was put in prior to 1893 and that the average life of the entire plant must be fully 20 years. Now if we assume the depreciation of the company's business on 5 per cent a year straight depreciation without a sinking fund basis then it would have practically no value at all today, 20 times 5 per cent would be 100; but of course that could not be; but on a 20 year life on my theory of a sinking fund the plant would be worth a little over $\frac{1}{2}$, or about half of its original costs. I had forgot-en to mention that I did not include I believe in my computation of values, piping for gas ranges on the theory that that was part of past promo-

tion and gratuitous service and not property that the gas company owned today. And the paving I excluded on the ground that the company had not paid anything for it.

Q. You did not exclude that, however, on the estimate of the basis of their value?

A. No sir, nor did I exclude the piping for gas ranges.

Cross-examination.

208 Examined by Mr. ROSE: on behalf of the plaintiff:

Q. The author of the hand book that you referred to is M. Nesbit Latta at New York City is it?

A. I do not remember his initials, it is a recent book just out.

Q. How old a man is he?

A. I do not know, I never met him.

Q. What is your knowledge as to what experience he has had as an engineer, as a constructing engineer and manager of gas works?

A. I do not know. The quotation I gave from him was from a very prominent chemist.

Q. What is his occupation?

A. I do not know a thing about him.

Q. What are his earnings?

A. I do not know.

Q. Did you know he has been working for Mr. Henry L. Dogherty at a salary of not to exceed \$125.00 a month in New York City?

A. No sir, I do not know anything about him.

Q. Working on a process for burning carbon dioxide under grates?

A. No sir, I say I do not know a thing about the man.

Q. You do not know anything about his skill do you?

A. No sir.

Q. You do not know whether he is regarded as an authority by practical engineers or operators of gas works or not?

A. I have not quoted him as an authority, I haven't intended to.

Q. Then you retract what you said about that being one of the best recent authors on the relation of candle power and heat?

A. What I meant to say was his quotation was from one of the best, from Professor Lewes.

209 Q. That is not what you said?

A. I intended to, if I did not I want to change it, I quoted it as from Professor Lewes.

Q. You do not know then whether Latta is a good authority or not?

A. But I would assume his quotation was correct.

Q. As a matter of fact, there is no fixed relation between the candle power and heating power is there?

A. It is simply the result of many tests this theory of Professor Lewes, he is one of the greatest professors on gas.

Q. Answer the question specifically instead of generally or else say you cannot answer it specifically. As a matter of fact there is no fixed relation between the candle power and the heating power is there?

A. I do not know that it is absolutely fixed.

Q. Do you have the history of tests made at any particular plant in a series for both heat and light?

A. I listened to such testimony by a professor at the University of Michigan in the Saginaw gas case recently and I took some notes on that but I do not think I have them with me.

Q. Have you inquired here of this city whom you are serving now, as to reports that are made here 15 times a month, at least, ever since the quality ordinance of this city was passed, to ascertain whether there is any definite ratio maintained between the power of gas for illuminosity and heat?

A. I have inquired for what tests they had but they have not handed them to me. They were going to hand some to me this morning and some yesterday but overlooked it I think.

Q. Now it is a recognized fact in the practical experience
210 of tests that there is no fixed relation between candle power and heat unit of gas; that is true is it not?

A. I think there is an approximate relation, it is not absolute.

Q. Isn't it a fact that there is not even an approximate relationship, that the variations are so great that we must admit that there is no practical relationship between the two?

A. I did not understand it. If you confine it to coal gas or water gas, but of course the ratio is different in the two gases and the proportion of the mixtures would make a different relation.

Q. Your principal investigations on the subject of gas has been in the line of acquiring statistics has it not?

A. Yes sir.

Q. Now as a statistician do you find that you can arrive at any certain value by taking any one specific year and fix it for a guide, for an average of years, or do you get the average from a series of years and a series of experiments?

A. I prefer to go back as far as possible, and asked for the result here for four or five years and I have had access to such as Mr. Wiggins was able to prepare.

Q. Now I noticed in the theory that you suggested, the economizing of costs here, you took the year 1907 which presented the most favorable year for water gas and the most unfavorable year for coal gas in a series of years for this company and based all your figures upon it?

A. I would have to correct that, 1904 was as favorable for water gas and far more so for coal gas. You are correct, therefore,
211 in regard to your coal gas in your suggestion, but not in regard to water gas.

Q. You gave the items in your testimony for the years 1907, 1906 and 1905?

A. Yes sir.

Q. And then suggested that for the future a saving could be made by generating more water gas, basing your figures upon the most favorable year to water gas, 1907, and the most unfavorable year to coal gas in the experience of the company for the three years?

A. I say on water gas there was only a difference of $1\frac{4}{10}$ of a cent between 1905 and 1907. You are correct, therefore, but the difference was in advantage of water gas.

Q. Now as a statistician in your own line you would discredit that standard then by your own answers wouldn't you? You have to take that in connection with previous years?

A. But the last year has rather more weight.

Q. But as a matter of fact you gave the last year didn't you only?

A. Why I think I used the data here, I referred to previous years this morning several times.

Q. No sir, in your computation on what might be saved by water gas didn't you base it exclusively upon the reports of this company, the relative reports as to the costs of coal gas and water gas for the year 1907?

A. I criticised the coal gas with reference to the previous two or three years.

Q. That doesn't answer me; it is just a question of candor?

A. I was trying to answer you.

Q. In analyzing the figures you gave, you took the base rate for water gas of $39\frac{51}{100}$?

212 A. Yes sir.

Q. Station costs?

A. Yes sir.

Q. You took the base rate on coal gas of $62\frac{9}{10}$, didn't you?

A. Yes sir.

Q. Those are the exact figures of 1907?

A. Yes sir.

Q. Now suppose you had applied that same test to the experience of this company in the year 1905 would you not have found on the same identical analysis that you made that the use of water gas exclusively would have increased the costs of the mixed gas?

A. Possibly, but not—

Q. You say possibly, wouldn't it positively have done so on the same theory? You confined yourself to 1905?

A. Yes sir.

Q. Specifically?

A. Yes sir.

Q. Wouldn't it have increased the cost of mixed gas that year upon these experiences of $40\frac{77}{100}$ for coal gas and $40\frac{95}{100}$ for water gas if you had used water gas exclusively and not had the benefit of the economy in coke and residuals from coke?

A. Yes sir, that is true but if I had used 1905 exclusively for coal and water gas I would have started on $73\frac{37}{100}$ instead of $79\frac{12}{100}$ cents. In other words in 1905 the total costs was nearly six cents less than in 1907 for the mixed gas, so I was taking the last year which was not as favorable to the company as if I had taken 1905.

213 Q. Now don't you know that is an uncandid answer?

A. No sir.

Q. Consciously made?

A. No sir, but I know this in explanation of that, I think I ought to explain that I think there was a reason in 1905 for its being so quite low and a reason why therefore it wouldn't have been fair to to take it.

Q. Let us decide your fairness and your disposition towards making a fair exhibit here. The same loss of economy in fuel and residuals that you analyzed and exhibited for 1907 if applied to the year 1905 would have made the result of the manufacture of all water gas show an increased cost over what the actual experience was from the use of coal and water gas, is that plain?

A. I understand it correctly I would say that it would have made the costs in 1905 a little greater than it was, but still less than in 1907.

Q. Well, we are not discussing that. You were giving a theory as against actual practice, to give a relatively better result were you not?

A. Well I understood that in 1905 you used a cheaper Kansas coal.

Q. Now you are dodging me?

A. No I am not.

Q. I am testing your theory and why will you not answer me specifically? You said assuming the prices of fuel, coal and oil, to be what the company had to pay in actual experience, and labor paid for in actual experience in 1907 under those same conditions the manufacture of exclusive water gas would have been increased about 4½ cents if it had not been for the manufacture of coal gas which was mixed with it, wouldn't it?

A. The figure would have been increased over the cost of water gas—

(By STEWART:)

Q. He says the price of water gas would be increased? The station costs of water gas would have been increased 4½ cents per thousand feet but for the use of coal and the residuals of the coal?

A. I thought it would not be as high as that. I said assuming you had to buy your coke away from the city and made only water gas and paid \$1.85, I think it was a ton more for the coke according to Mr. Honeywell's testimony that it would work out a certain increased cost on water gas but I do not think it was as high as 4 cents but it may have been. I think it was 3 and a fraction.

Q. You gave the item for an increase of \$1.75 a ton for coke, didn't you?

A. Yes sir.

Q. \$1.85 I mean?

A. Yes sir.

Q. And you reduced that to cents per thousand, didn't you?

A. Yes sir.

Q. Haven't you a memorandum of that?

A. I haven't it by me.

Q. You also said that more oil would have to be used in order to bring up the heat standard?

A. Yes sir, or might have to be.

Q. Well, as a practical matter you could be specific and you was specific in making your analysis were you not?

A. I do not remember just what I said but it was between three and four cents I think I arrived at after using a little more
215 oil, but if you say four and one quarter cents I will admit it, I don't remember.

Q. Then you added the increased quantity of oil to bring the candle power up to 625 B. T. U.?

A. Yes sir.

Q. Which would make another cent or another cent and a quarter per thousand feet?

A. I used some such figure as that.

Q. Making the total difference of about $4\frac{1}{2}$ cents, of course the specific fraction is not essential?

A. It was around four cents I don't remember exactly.

Q. Now that same economy derived from the manufacture of coal gas alone as applied to the net comparative cost at the station of coal and water gas in 1905 if eliminated would have made the water gas that year cost much more than the combined costs of the mixed gas?

A. Yes, but I had a reason for rejecting 1905 that I thought was fair to your company.

Q. Well, whether the actual experience showed the station costs to be high or low the same elements would effect the costs of water gas at the station in order to bring the efficiency of the gas up to the standard required wouldn't it?

A. Yes sir, but coal gas in 1905 was a different proposition to 1907, and you cannot ignore the difference I don't think in any comparison.

Q. Well wouldn't the market for coke necessary to manufacture water gas in 1905 have been higher if you had purchased it in the market just as it was in 1907, haven't you assumed that?

216 A. The whole question was coal, the coal you used in 1905 and what you paid for it. I may have been wrongfully informed but I understood you to say you used a poor coal that had some sulphur in 1905 and you couldn't continue using it. Now if I was wrong in that it would have been perhaps fairer to use 1905.

Q. There wasn't such a great differentiation in the station costs in 1905 and 1906 when they didn't use a poor coal as there was in 1907 was there?

A. Coal gas rose from a cost of $40\frac{77}{100}$ cents in 1905 to $54\frac{26}{100}$ cents in 1906 & to $62\frac{9}{100}$ cents in 1907.

Q. Now as a statistician you know it would not be fair to take any one year and form a conclusion from the experience of any one year, don't you, prices of coal and prices of oil will fluctuate will they not?

A. Yes sir, that is why I tried to use all these years.

Q. Then why didn't you use them in giving your probable results in the line of economy for manufacturing a greater proportion of water gas instead of using one year?

A. Because I thought that water gas had to be compared with coal gas under existing conditions of coal.

Q. And yet as a stati-cian you acknowledge that the conditions one year may be reversed the next year?

A. Yes sir, I wasn't arguing that the coal gas plant should be scrapped but it ought not to be used during the present prices.

Q. You wouldn't stand on that suggestion as a prognostication for the future results would you?

A. I haven't said it was certain enough to scrap the coal gas plant but only not use it so much.

217 Q. You wouldn't say now it would be right to scrap the coal gas plant?

A. No sir, I don't say a word of that kind.

Q. If one system is used here then the company would be at the mercy of the dealer in oil or coal whichever they used?

A. It is a good thing to keep both ready to use.

Q. And you would not criticise the company for keeping both in this particular locality?

A. No sir.

Q. What would be the cost of purchasing and installing a 500,000 capacity holder here in Lincoln?

A. Well in the neighborhood of \$50,000. I could not tell exactly.

Q. Would that include the cost of the ground it occupied?

A. No sir, aside from the land but including the foundation.

Q. When did you come to Lincoln to attend this trial?

A. I arrived I believe on Tuesday morning.

Q. Wasn't it Wednesday morning?

A. Yes sir, you are right Wednesday morning.

Q. You arrived the day previous to the hearing here?

A. Yes sir, that is right.

Q. And you have attended the hearing persistently?

A. Yes sir.

Q. And you have assisted the city attorney in examinations and made suggestions to him?

A. To a slight degree. I had read much of the testimony before I came that was taken previously.

218 Q. Now what previous acquaintance have you had with the city of Lincoln?

A. Well aside from reading the testimony in this case and the various exhibits which I did at home I had only been in Lincoln once before and that was only on a little visit of pleasure perhaps. I do not remember any business particularly. I drove around the city once and saw a little of it.

Q. Drove around during an hour or two?

A. I was here three, or four or five hours perhaps, I didn't see much of it.

Q. How many years ago was that?

A. As I recall it was eight or nine years ago.

Q. In 1872 when this gas plant was installed here what was the population of Lincoln?

A. I haven't looked up the population of Lincoln in the past years at all.

Q. In 1890 and 1892 when the gas plant was reconstructed what was the population of Lincoln?

A. That too I haven't looked up.

Q. In 1872, when the plant was originally constructed, what would be the reasonable requirements or provision for future needs of the public in a plant of this kind?

A. Not knowing anything about the population and conditions it would be very hard to say.

Q. And an engineer could not be a prophet and tell what the future developments of the town would be?

A. Not very well.

Q. And in 1890 when it was reconstructed and engineer
219 could not go into the field of prophecy and ascertain the particular sizes of his equipment?

A. No sir, for the future needs of the city. We—he could do it better than in 1873, on account of the past history of the town.

Q. Do you think so?

A. Yes sir; and having had the experience of the town in the past it would be more of a guide.

Q. What was the state of development of this city in 1890 as compared with what it is now?

A. Of course I am not especially acquainted with it.

Q. What were the relative values of the property, actual and assessed value in this state in 1890 as compared with today?

A. I haven't looked those things up.

Q. And yet those things would be important in judging the prudence of the engineers in building this property wouldn't it?

A. Certainly an engineer would want that data.

Q. You couldn't now looking back pass upon whether the money was wisely expended at the time without knowing these facts could you—I will say prudently, whether the expenditures and the plans were justifiable, you could not tell that without looking back could you?

A. You would not want to judge the intellectual capacity of those engineers without that but hind-sight being really better than fore-sight you might now have a judgment as to the wisdom of their plans.

Q. And you would not measure the rights of the men who invested their money 35 years ago by the experience that you have ascertained after the development had taken place would you?

220 A. Well, I do not recognize or question the rights in any investment where they put it into any sort of business, it may develop or it may go down, I do not know as there is an absolute right in the matter. They saw a growing town and they put their money in.

Q. Now let me put to you another question. Assuming that in 1870 Lincoln was a city of a thousand inhabitants and that the entire consumption of gas that was demanded by the present population was about 65000 per year, would you think that, under those circumstances an engineering project that would provide a plant for the needs of a city of 50,000 people in the future would be justifiable?

A. Oh, no. There is a much larger allowance that must be made for depreciation in a town of 5000 or 1000 growing up to a town of 40,000 than afterwards, inadequacy develops more rapidly.

Q. This town was laid out in 1867, there might have been a little settlement or town here before that called Lancaster, but it had no gas conveniences or any demand for it until 1872; I notice you have mentioned the towns of Massachusetts, particularly eleven plants outside of Boston, you may give me the names of these towns?

A. Brockton and Charleston and East Boston, Haverhill, Malden, New Bedford, Newton, Salem, Cambridge, Fall River, Lowell, Pittsburg, Springfield, Taunton, and Worcester,—I gave four there by mistake.

Q. What are the four you gave by mistake?

A. Charleston, Haverhill, New Bedford and Newton had not given returns on dividends and interest and so I took the eleven that did, then I took an average of eight towns on leakage

221 and they consisted of Brockton, Charlestown, East Boston, Haverhill, Malden, New Bedford, Newton and Salem, that was every town that had over 100,000,000 feet of sales and under 300,000,000 feet in the year ending June 30, 1907, while the others that had dividends and interest on 23 cents consisted of every town having sales of over 75 million feet, except Boston, that made any report on the subject. There were four towns which I indicated a minute ago that did not make any report of subject.

Q. Now how many miles of mains do they have in Brockton?

A. I can tell you but just now I have before me the leakage per mile of main which was 137,000 feet—

Q. That is not responsive to my question, I said how many miles of main?

A. I could give you the sales off hand and I can look up the amount of miles.

Q. No. I just want the amount of miles of mains in Brockton?

A. 87½ miles.

Q. And the sales?

A. 129,732,800 feet.

Q. Now in Charlestown what was the number of miles of mains?

A. 55½ miles.

Q. And the sales?

A. 210,163,264 feet.

Q. And East Boston, what is the number of miles of mains?

A. 29 4/5 miles.

Q. And the sales?

A. 159,975,000.

Q. And Haverhill?

A. 54 3/5 miles.

Q. And the sales.

222 A. 182,359,100 feet.

Q. And Malden what were the number of miles of mains and sales?

A. 149¼ miles of main.

Q. And the sales?

A. 218,222,870 feet. Do you want the next?

Q. What is the per cent. of leakage in Malden?

A. Malden has 12-7/100 per cent, the highest of all.

Q. Now New Bedford, How many miles of mains and sales?

A. 81-4/5 miles and 229,652,295 feet of sales.

Q. And Newton?

A. 126 miles of mains, and 188,242,500 feet of sales.

Q. I would like the per cent. of leakage at Newton?

A. 4-13/100 per cent.

Q. And Salem how many miles of mains?

A. 55 3/4 miles and 118,327,800 feet of sales.

Q. Now how old a town is Brockton?

A. I haven't data on any of those towns but they are all old.

Q. How old a gas plant is it?

A. All the gas plants in Massachusetts dated with Boston somewhere about 1820 and then the others followed along, the majority of them I do not think came until after 1840, but just how soon after that I could not say, I do not know as I have ever seen the figures. Somewhere between 1840 and 1860 probably in most all of these cases. Perhaps not, it may have been a little later in one or two.

Q. And these towns are old corporations, most of them formed under authority of the British Government before the independence, if not all of them?

A. A good many of them were, well Salem was I know, 223 and New Bedford, and there are others like Haverhill that is a more recent town, a shoe town, and Brockton is another.

Q. How old are those towns?

A. That I cannot say nor can I say about the gas works.

Q. How long have those towns been prominent as manufacturing places?

A. Oh, I suppose 30 or 40 years.

Q. In the last 35 years what has been the ratio of increase of population in those towns?

A. That I do not know.

Q. Are there any of those towns to your knowledge that have streets at intervals of 300 feet that average over 100 feet in width?

A. Well many of those towns have the traditional New England Elms with the wide lawns between the curbs and the house, and Newton is preeminently of that character, Charlestown is a little of that character.

Q. Would you say any of those towns have streets that average over 100 feet in width?

A. I think some of those towns have as great a width from house line to house line, or even from curb to curb as here, I think they would.

Q. From lot line to lot line, the public way?

A. I think some of them would.

Q. Which one of those Massachusetts towns do you think have streets that average in excess of 100 feet wide from lot line to lot line?

A. As I have driven about both Newton and Lincoln I would say Newton had as wide streets as Lincoln, I have been in many of the others but not recently, I do not recall about most of the
224 others. I think Malden——

Q. How many of the towns are laid out checker board fashion with regular platted streets intersecting leaving 300 foot blocks in the clear, with an alley intervening out of that and then all around they have streets that average in excess of 100 feet?

A. Well, that is a little hard to say.

Q. There is not one of them is there to your knowledge?

A. I have said that I think three or four of them have as wide streets and lawns as this city.

Q. Did you understand the force of my last question, to show what proportion of the town was in streets? Are any of them platted in squares of 300 feet surrounded regularly by streets that average over 100 feet in width?

A. Well, I could not say.

Q. Isn't it a fact that there is not a town in the state of Massachusetts where that condition exists, and notoriously so?

A. Perhaps not just in that form.

Q. There is not a town in Massachusetts, particularly these that you have mentioned, that have as great a proportion of the area within its corporate limits public highways or streets as the city of Lincoln, is there?

A. Well, it may be, I do not know absolutely and positively.

Q. Does the age of a plant and the age of the town and the ability of the company to get a sort of an average experience have any weight in determining what the reasonable rate of depreciation is?

A. In the early years of the plant it is very important, but after 30 or 40 years it is not so important, they have got it then.

Q. It would make a difference then would it not?

225 A. In the first 15 or 20 years it would.

Q. Would it in the first 30 years?

A. Well, it is indefinite, I should say after 20 years in a town, the company would have a pretty reliable experience to go on.

Q. You say you lived in Kansas?

A. I was two years at Manhattan.

Q. Are you acquainted with conditions at Wichita?

A. No sir. I never happened to visit Wichita.

Q. You know by general report the conditions there don't you from 1887?

A. No sir, not very well.

Q. Could a company anticipate what would be the future requirements as late as 1890, of Wichita.

A. I would not undertake to say very much about it.

Q. Now about the local condition of Lincoln, do you know here within that period the demand to Southeast Lincoln has been added to the plant here?

A. No sir.

Q. Do you know within what period the demand in North Lincoln in Belmont or Yulanda Place, where they formerly had their

wollen mills, and power houses for city electric railway companies do you know *what* that demand was taken off of this plant?

A. No sir.

Q. Do you know the history of that section of the town being moved away and the houses being moved away bodily?

A. No sir.

Q. You do not know anything about the history of the Southeast part of Lincoln, the different parts that have been added here to change the locality of the demand?

226 A. No sir.

Q. Would those conditions effect the item of depreciation locally?

A. It would effect the past depreciation, it would effect the present structural value of the property, if there are a lot of mains in abandoned streets of course that is an item of importance.

Q. And if a main that might have been reasonably adequate as far as the engineer could foresee in 1890, became wholly inadequate by reason of the extension of the town in that direction, that would effect the depreciation, wouldn't it?

A. Yes sir.

Q. And in order to make a fair estimate of what would be reasonable under local conditions it is necessary for the engineer to know local conditions, isn't it?

A. In considering the future it is very important to consider the past, of course we have the experience of the company.

Q. I understood you were departing from the experience of the company in this case, that it was your opinion that the experience of the company ought not to count in this case?

A. In deciding the present value of the property any mistakes were not intentional but any failure to adjust the plants to the needs of the city and its growth will effect the amount that you will have to write off today, in getting present structural value.

Q. And the adjustment of it requires the employment of increased capital necessarily?

A. It has required in the past the writing off of more depreciation than if such failure to anticipate the future had not existed of course.

Q. And cannot you see from the reports here that you
227 have examined hurriedly that to meet the conditions that you suggest for the future of adequacy and the saving in leakage and kindred matters will require at the present time the employment of increased capital, a larger increased capital by this company?

A. There is need of increased capital, for larger mains, or high pressure mains.

Q. Then to effect that saving it will be necessary to make allowance for interest and income upon additional investment that will proportionately compensate for the savings but not wholly?

A. So far as the increased mains are necessary to reduce the leakage that is true.

Q. And so far as the increased facilities at the station that are now being installed there since Mr. Malone testified, that means that

there will be additional invested capital to be compensated for, doesn't it?

A. Yes sir.

Q. So testifying here some eight or nine months after Mr. Malone testified, your assumption upon present conditions would not be the same as his of course?

A. One ought to add in the investment since then in applying the present condition.

Q. Now in giving your testimony have you taken into account the fact that the city of Lincoln is in part located in a salt basin, that the plant itself is located on salt Creek bottom?

A. I took it into account sufficiently to ask Mr. Deffenbaugh if alkali had hurt the water mains because I saw something in the testimony of Mr. Malone or somebody in regard to that.

228 Q. Did you take Mr. Malone's testimony or Mr. Deffenbaugh's on that?

A. I took Mr. Deffenbaugh's statement that he had not observed any bad effects from the soil. I heard his testimony here on that point.

Q. And you took his instead of Mr. Malone's?

A. Well, which ever it was it was not very positive. They made some assertion—

Q. Were you advised that the "F" street well located right within the city here produced salt water so briny that it had to be abandoned and that it affected the plumbing and the private services in use in the water department of the city of Lincoln?

A. I had not heard of that, no sir.

Q. Were you advised that there is a flowing salt well right in the government square—right in the heart of the city here?

A. No sir, I had not been informed of that.

Q. Were you advised that around the city and extending perhaps some places into the corporate limits there are areas of alkali soil and that there are areas of alkali soil within the city where the gas mains have to be laid?

A. No sir, I haven't heard anything except what was in the testimony.

Q. And you never have been out to see what we call our salt basins here?

A. No sir.

Q. And you did not know that salt accumulated on the top of the ground and has been saved here right in this city and carried away in sacks, you did not know that did you?

A. No sir, I did not know about that.

229 Q. The historical facts you are not posted on?

A. No sir.

Q. And you could not post yourself on those conditions just being here over night in the city?

A. Well, it is not likely unless some one had thought to call my attention to that.

Q. Now as the gas companies of Massachusetts grow older the

percentage on investment allowed for depreciation by the supervising authorities of the state has decreased has it not?

A. They do not make a rule but they take it up in each company as they come up for hearing?

Q. Well formerly?

A. I think they are more rigid than they were formerly.

Q. Formerly didn't they have a rule of five per cent on the total costs of the new plant?

A. That was a law governing municipal gas works, but not applied by the commissioner in hearings as to private companies that I know of.

Q. What was the law governing municipal gas works, what were they required to deduct for depreciation?

A. It was, under the old law, five per cent.

Q. And that law was in force up until what time?

A. About 2 years ago.

Q. And under the condition of the plant as they existed at that time, it was reasonable, wasn't it?

A. I don't think so.

Q. It was regarded so by the public and generally accredited over the country as reasonable, wasn't it?

A. I don't think so.

Q. You say it was not?

A. No sir.

Q. Do you think any practical operating gas engineer in 230 the country gave a lower estimate than five per cent.

A. They did not have any figures in their own bookkeeping.

Q. Answer the question?

A. Yes sir, I do not think they considered it reasonable.

Q. Now what practical operating gas man experienced in operating gas plants, experienced in engineering in that line, can you name that in any practical work in towns under 100,000 population has ever estimated that the item of depreciation alone would be less than five per cent?

A. They have not made any estimates to my knowledge at all, that may be in concrete cases. The first important case that I heard argued or read the history of was the Holyoke case, that came out in 20 volumes in all, in the year 1898, and in that case President Humphreys of Steven's Institute estimated a depreciation of about five or six cents per thousand feet in that plant, the plant has sold 68,000,000 feet of gas, about $\frac{2}{3}$ coal gas and $\frac{1}{3}$ water gas. He has since then said he did not intend to make that the general rule but only in regard to that plant and his testimony was of a general character in that case. Mr. Addicks I heard testify in the Boston case in 1905 or 1906, I think January, 1906—

Q. What was the population of Holyoke at the time you refer to?

A. About 40,000.

Q. On the Boston case,—what is the population of Boston?

A. Boston of course has a very large population.

Q. I asked for towns of 100,000 and under 100,000?

A. Now I am not familiar with any gas cases where I supposed such data was given. In the Springfield and Haverhill case
231 in which I was connected in those years and the Des Moines, Iowa, case,—but I do not remember what the figures were.

Q. Do you remember that any practical engineer has claimed that five per cent was not any more than adequate for that item?

A. I am not familiar with their claims of five per cent.

Q. You never heard that claimed, did you?

A. I think I have seen one or two witnesses' statements in this case that claimed five per cent.

Q. And elsewhere?

A. Yes sir, I believe in the Saginaw and Cedar Rapids case, but most of the testimony and evidence that I have seen has not claimed as high as that.

Q. By practical engineers and operators?

A. Yes sir; they have mostly been in larger cities though; take the Buffalo and the Syracuse cases, they were larger cities however.

Q. The size of the city does effect the question of depreciation, doesn't it?

A. Only to a certain extent in regard to inadequacy. A large city is not supposed to grow quite as fast, sometimes it does.

Q. You mention the conditions that you think would modify or affect the item of depreciation?

A. The rapidity of growth effects the question of inadequacy, the character of the soil and electrolysis affects the durability. I am speaking now of the distributing system. With regard to the manufacturing plant the factors there would be the progress of the
232 art, and inadequacy due to the growth of the city, but the wear and *tare* would be about the same in the small and in the large plant.

Q. On testifying here on the item of depreciation do you take into account that this plant was only organized 35 years ago and at a period somewhat under 35 years prior to the passage of the ordinance, taking effect which is in controversy here, and originally constructed with wooden mains that had to be replaced?

A. I understood that that was the facts of the case.

Q. In that case those wooden mains would all have to be replaced.

A. Yes sir.

Q. The original construction would not be as expensive as iron?

A. No sir, I suppose not, although I do not know about that.

Q. And the plant had to be practically reconstructed a second time in 1890 to 1892, the manufacturing part of the plant, did, and then again so far as the mains are concerned too, in 1900, a reconstruction of the system of mains and then very extensive changes again including a large proportion of the plant in 1900?

A. I do not *under* understand there has been any reconstruction of the distributing system except in the matter of those wooden mains.

Q. Then you haven't taken into account the testimony here of Mr. Honeywell, and others that the distributing system itself was practically reconstructed in 1890?

A. Yes sir.

Q. And then in a large part and extensively had to be replaced and reconstructed again in 1900 and up to 1902?

A. Yes sir, I have noticed the testimony on that and to some extent have studied it.

233 Q. Well the actual experience here shows then that this distributing plant does last 75 years?

A. I do not understand that the iron mains, the cast iron mains, have been renewed to any extent. It is the wooden mains and probably the two inch mains. I do not think the four inch and six inch and eight inch have been except as taken care of in ordinary repairs by the six cents a thousand feet.

Q. You have not been informed then that the "M" street mains, six inch mains, were replaced with 8 inch mains, have you?

A. No sir.

Q. Nor the 27th street four inch mains replaced with six inch mains, you did not know that?

A. I was not given the particular item.

Q. And you had not taken into account the fact that the mains from the plant were increased from eight to 20 inches?

A. Well I am not surprised at that. I knew that must have been increased from the old days of course.

Q. You have noticed a very great increase in the demand haven't you in looking over these reports?

A. Oh, yes.

Q. And that of course was contemporaneous too with a large additional charge or a new business department, wasn't it?

A. Yes sir.

Q. It would indicate on its fact that there had been a house to house canvass made here, to put equipments in the houses?

A. Yes sir, and while the charges were large for that the expenditure of money would operate in the end to the economy of distribution?

A. Yes sir.

234 Q. You would not criticise the expenditure under the circumstances here even of a large sum for the new business department if there were many tenements that were not equipped previously for gas?

A. That is right, no sir I would not.

Q. And in the gas business like every other business the patronage has to be promoted by persistent and attractive solicitation.

A. That is a very useful method. Of course reduction in price will also do it, but this other method is useful in a measure and ought to be resorted to.

Q. And ought to be resorted to in connection with the reduction of prices?

A. Yes sir.

Q. In order to call the attention of the individuals to the reduction?

A. Yes sir, it is desirable and customary.

Q. To explain the advantages and the equipments?

A. Yes sir.

Q. The persons who have not been accustomed to the use of this convenience need to be informed about it?

A. Yes sir.

Q. And the applicances have to be explained to show what convenience will result and what the cost will be?

A. Yes sir.

Q. That requires money?

A. Yes sir, it is a sort of a legitimate public exhalation.

Q. Now I want to ask you if, when the company is charging rates that are only adequate to maintain its plant and give the
235 constitutional recompense to the stockholder there is a decrease of the price of gas, whether or not there is any known way to make up that decrease excepting to expand the volume of the company's business so that by enlarging their business they can actually carry it on at a decreased percentage of profit.

A. Under all the conditions of your questions and suppositions of it, I would answer that it appears to be the only way provided they have exercised all reasonable prudence and economy in the management.

Q. Then, as a result of the increased consumption or sales, the relative costs of administration and labor and the like of that will be diminished because of the increase?

A. Yes sir.

Q. That is the relative cost per thousand feet?

A. Yes sir.

Q. As you enlarge your plant there are certain elements of necessary cost of manufacture and distribution that will be decreased relatively per thousand feet of output?

A. Yes sir.

Q. Now suppose the reduction is 20 cents, as you suggested, an increased output is 10 per cent, would you still say that the net result of that decrease in price at 20 cents per thousand feet would only amount in fact to 20 cents per thousand feet?

A. I don't remember that I said the increase in output would only be 10 per cent. It has been more that that without even a reduction in price part of the time.

Q. Now how great a per cent of the out put in your opinion
236 would be required in a plant of this size in order to reduce the costs of manufacturing and distribution, including the interests on capital.

A. Ten cents per thousand feet.

Q. In this town?

A. Without any changes other than what is due to increased output.

Q. Yes sir? You can take those that are consequent upon that increase?

A. Oh, without any other change?

Q. Yes sir.

A. Oh, it would very likely take 40 per cent. I cannot be positive 30 per cent might do it, you cannot tell off hand.

Q. It might require 100 per cent.

A. No sir I think not.

Q. What do you give as the cost of manufacturing and distribution for the year 1906, at the close of which this ordinance took effect, per thousand feet?

A. The company's report for 1906, was 82 68/100 cents.

Q. Now what was the percentage of increase in 1907 over 1906?

A. Well, there was an increase of 26,000,000 on 153,000,000 feet so there was an increase of about 17 per cent.

Q. Now in the actual experience of this company as you have examined the books, how much of a decrease in the cost per thousand feet to this company did that increase of 17 per cent effect?

A. I have not worked it out, it will be hard to say, there was quite an increase of some items that was not due at all to increase of growth.

Q. Well, you may give me this combined cost of manufacture and distribution which this report gives for 1907. I think
237 you gave it once.

A. 72 12/100 cents.

Q. And what is the difference between that and what the reports show for the pre-ious year?

A. 3 56/100 per cent.

Q. And that was in spite of the increase of over two cents in these repair renewals?

(By Mr. STEWART:)

Q. And an increase in fuel?

A. Yes sir.

Q. So your figures of 30 to 40 per cent to decrease it ten cents would be theoretical rather than practical?

A. I have never worked it over in that way. What I have observed was that a decline of 20 cents in price would generally mean a decline in profit of not over 15 cents, owing to the large increase in business; and the second year it would be a decline of not over ten cents usually.

Q. You do not mean to say there is any rule of that sort?

A. Oh, it generally follows.

Q. That all depends on the experience of the plant does it not?

A. It will vary in different poants. It is not a precise mathematical rule, it would depend upon the energy of the company in following it up.

Q. It would dep-nd on many local conditions too?

A. All I mean to say is there is a considerable reduction in cost per thousand feet with a large increase of output sure to follow.

Q. But to say we can reduce that to a definitely ascertained basis in this city, you would not attempt to do that?

A. No sir.

Q. Now you gave two rules for estimating the normal amount of leakage, one being 150,000 feet per mile of mains?

238 A. Yes sir.

Q. The other five per cent to six per cent?

A. Sis per cent; I allowed seven per cent here though.

Q. Now those two rules that you gave as a question of theory are absolutely destructive to each other, and irreconcilable are they not?

A. I stated that as the experience of these eight companies in Massachusetts, it was $6\frac{4}{100}$ per cent of 150,000 feet was the experience in 1907. In 1906 it was 5 and $92/100$ per cent for unaccounted for gas.

Q. But as applied to an individual plant it would not be possible to apply both tests, would it, except the conditions came up to a given standard?

A. It is generally conceded fairer to apply the leakage per mile of mains rather than per thousand feet of gas.

Q. Now the wide streets in this city making an exceptionally large mileage for the out-put, would affect it would it not, if such were the local conditions?

A. There are about 63 miles of mains here is there not, 64 miles of mains, that is at the close of 1907, at the beginning of 1907 there was 61 miles, or an average of $62\frac{1}{2}$ miles, and the sales were nearly 180,000,000 feet, and that is not quite 3,000,000 feet per mile of mains, but almost 3,000,000 feet per mile of mains?

Q. That is a little less than normal is it not in a town of this size?

A. I will give you the same in these towns in Massachusetts if you wish. I do not just remember but it is not far from the average.

Q. How does it compare with Madison, Wisconsin, for example?

239 A. I have not the figures.

Q. Or Denver, Colo., or Des Moines, Ia.?

A. I have not the figures for any of those.

Q. Or Omaha, Nebraska, or Sioux City, Ia.?

A. I have not got it.

Q. Can you give us in the cities here in this community here, like Sioux City, or Omaha, or Cedar Rapids?

A. I can give it from Brown's Directory if you wish.

Q. Now is the leakage affected relatively, by the size of the mains?

A. The leakage is somewhat larger proportionately with a small main.

Q. And in this plant here, there is, you say, a abnormal ratio of small mains?

A. Yes sir, you have given the figures for both in your annual report of leakage on both basis, the leakage per mile of mains was last year—I was wrong by ten points, it ought to be 300,000 the leakage last year was 385,213 feet per mile of main, and reduced to a three inch size, it was 354,081 feet per mile, reducing the mains to three inches.

Q. What would it be?

A. 354,081 feet.

Q. That is a little over twice what you gave as a theoretical figure.

A. Yes sir, it is not altogether theoretical, I said these 11 companies had an average of 151,000 and I allowed about two hundred thousand feet as normal in my calculations. I only took off forty per cent.

Q. You stated that in these companies they had relatively a very much larger investment, from which to pay an income?

240 A. I thought you were talking about unaccounted for gas now, and not about investments?

Q. No, you saw fit to compare constantly this company with the Massachusetts companies.

A. About leakage?

Q. Yes sir.

A. Yes sir.

Q. And you say they have a more expensive equipment in the Massachusetts companies than they have here?

A. Yes sir.

Q. So if we bring ourselves here to the basis of the Massachusetts companies, we would employ a greater amount of capital, upon which a dividend would be required, or an earning would be required, which would partially compensate for the decrease in the leakage would it not?

A. Yes sir.

Q. Now in respect to the taking care of the inadequacy, how do you figure out that it would be more economical to put down a parallel small pipe, instead of replacing the old pipe with one that is adequate and saving the old pipe?

A. Because it saves generally tearing up the paving for services and mains. They generally put down the new pipe near the curb and cut off the services from that side of the street from the old mains and supply them from the new.

Q. And how would you get them down if the ordinance required here that they should lay it under the pavement, how would you get it down without opening the pavement?

A. You would not have to open up the surface much, you would simply open by the curb, whereas if you took up the old main, and put in a new main in its place, you would have to tear up—

241 Q. Then in that case you would have the additional services to replace just the same, and there would be the connections or taps to be made?

A. If you laid right close to the curb, the services from the curb in, is not under paving much, and anyway it saves the bother of taking up the main more than anything else, and leaves the old main there, and you still get the use of the old mains. There is not any difference in cost.

Q. You have to dig a trench anyhow?

A. Yes sir. There is not any very large difference in cost but you save your mains.

Q. Now you say the leakage increases relatively as the main decreases?

A. Well not so largely, no sir, but it does slightly. The chief difference is that you keep a high pressure on a small main, if you have too many small mains relatively to large ones, and you have too high pressure and the pressure causes the leakage.

Q. You have relatively more volume of gas to the area of the crevice or joint?

A. Yes sir, altho the pressure accounts for more.

Q. Both are elements are they not?

A. Yes sir.

Q. Now in the case you speak of you would have two ditches in the same street would you not?

A. Yes sir.

Q. That would in time get to be a public nuisance and interference without the public improvements in the highway?

A. Well that is the way it is commonly done.

Q. As a man interested in municipal reforms, would you say that was a legitimate way of doing?

A. It leaves a larger portion of the street free from services, it rather relieves the congestion of pipe in the street, it relieves it from the services crossing the street so much, and you get rid of all of that crossing.

Q. Those services can be adjusted to the main in the street?

A. Yes sir, but still they are in the way. Now you lay another main near the other group, quite close to it, and then all of those services in the center can be removed as needed if you want to lay a big water main, or big sewer you can cut them.

Q. Are you aware of, or have you posted yourself upon the ordinance regulations in Lincoln, governing the laying of mains?

A. No sir.

Q. Well is it not generally true that those mains have to be laid under the direction of the city engineer?

A. Yes sir.

Q. And the question of whether he will allow two trenches and the two mains to occupy the full length of the street is a question that has to be determined by the city engineer first?

A. I don't know what your ordinance here is. Sometimes it is in the franchise and it provides for that. In Cleveland a good share of the gas mains are laid near the curb, one on each side of the street, they have hundreds of miles laid that way.

Q. Are there two companies there?

A. There has a natural gas company come in in the last five years, and that has done to some extent the same thing.

Q. You mean each company has its mains on each side of the curb?

A. The East Ohio has to some extent but not much. I was thinking of the artificial gas when I spoke, the Cleveland Gas & Coke Co.; they have 100's of miles of mains that are laid that way.

243 Q. They have a regulation here that the pipes must be laid and the services run to the curb on each lot, whether they are needed or not? They must lay them down there, and run one main, and run the services from both sides of that, that is a different regulation from what you have in Cleveland is it not?

A. I do not recall at the moment—I think there is a regulation on the subject there, and it is quite customary for them to do something of that kind—

Q. The practicability of that is actual application, would depend somewhat on the regulations of the city also?

A. Yes sir.

Q. It is a matter that the Company should not control arbitrarily because in that respect they are using the public streets and are subject to be directed by the city authorities?

A. Yes sir. I did not mean to imply that they should take up the small mains, I say a very common method would be to put the other in.

Q. Now — say if you put down a larger main, your one trench would enable you to remove the smaller one?

A. Yes sir.

Q. And there would only be one trench required?

A. Yes sir.

Q. There would be a greater economy in the matter of leakage at least in using a larger main, some would there not?

A. I think not because what little economy there would be in the main, would be offset by having shorter services.

Q. I mean in the leakage alone?

A. No sir, because the leakage comes sometimes in the
244 smaller services and it would be overcome by the shorter services.

Q. If you had to lay it in the middle of the street right close to the other main, there would not be any saving in that?

A. No sir, I assume it would be laid near the curb.

Q. Now if you removed the smaller mains and the pipes were in a good state of preservation, they could be used in construction in some other place, where that size would be adequate?

A. Yes sir.

Q. So it would be—or really would not make much difference in actual/y economy, whether you made the large pipe do the work or whether you reinforced, the supply there by a separate in that section would it?

A. Perhaps not any difference.

Q. Not enough so you would criticize the policy of replacing smaller mains by laying another main in the same trench where they laid, and saving the smaller pipe for a place where it was adequate you would not criticize that?

A. The engineer at each locality should be the best judge but I said the other was a very common method.

Q. You would not say but what the judgment of the local engineer on local conditions would be the better?

A. That is right, I do not know that I have ever testified differently in regard to that.

Q. Now on the item of depreciation, the figures that you gave here were of course professedly theoretically only, or at least to a great extent theoretically.

A. Well theories are based on facts of course, if they are good for anything, to explain facts.

Q. Based on statistics that you have collected are they not?

A. Well it depends on whether the man *was* made the statistics lied or not how valuable they are.

245 Q. I want to ask you if it is not an acknowledged truth, that in actual practice contingencies are necessarily counted

upon by constructing engineers which add to the theoretical or estimated cost of practically every public improvement that is ever constructed, that the cost invariably goes beyond the theoretical estimate, in actual practice, deduced either from statistics or estimated by the architect or engineer?

A. That I agree to, that is what is put in commonly as overhead charges where it is customary to allow from 10 to 15 per cent to overhead charges, including interest during construction.

Q. And in actual experience in structures of this kind it is not true that local contingencies are found almost invariably to exist which put the particular service or pipe or the machine or something out of use, and into scrap, inside of the theoretical life that will be given by a statistician?

A. You are talking now about life. I thought you was talking about the cost of construction?

Q. No sir, I am going back now to the depreciation item?

A. I want to modify what I said about the cost of construction because I do not think the overhead charges are as great for mains, and meters, and services as they are for the manufacturing plant. But coming now to what you speak of as the life of the plant, I think my figures of life especially 30 years for buildings and holders, and 20 years for the rest of the plant, are lower than I have ever known given by any engineer for a company in any case I ever was connected with with the possible connection of Saginaw and Cedar Rapids. It is customary to reckon mains from 100 to 75 years, it is customary to reckon buildings 40 years holders 30 to 40 years, and the rest of the plant about 25 years, altho some of it will be given a shorter life but I mean take it as a grouping.

have taken a shorter life for builders holders and most of the plant here, than is usual, because it was a growing town, and not quite so large as some.

Q. Did you ever hear of the President of this Company, Henry L. Dougherty?

A. I have met him and talked with him once or twice.

Q. You have heard of him outside of that I suppose?

A. Yes sir.

Q. He is prominent in the gas enterprises of this country?

A. Oh, Yes.

Q. He is one of the prominent men in gas management, is he not, in the whole country?

A. Yes sir.

Q. And is regarded as skilled in bringing properties up to efficiency is he not?

A. Yes sir, I think so.

Q. And especially in skilled in promoting consumption for individual plants?

A. Why I suppose so, I do not know his reputation of course very well, not as well as I do McMillin's but I think he is a good engineer in all of those lines, I suppose he is.

Q. And Mr. McMillin is prominent?

A. Yes sir.

Q. They are connected as I understand with the same enterprises?

A. Yes sir.

247 Q. Mr. Dougherty is Mr. McMillin's general manager?

A. I think he is.

Q. Mr. Dougherty is largely interested in both engineering and financing properties of this character?

A. I think so, yes sir.

Q. Did you ever hear him testify in cases of this character?

A. No sir. I never was present in a case with him. And never as I remember have I ever heard or read any testimony of his.

Q. Of course he is not given much to committing himself as a witness?

A. No sir.

Q. That is the truth about it, is it not?

A. Well, I have not come across him in connection with these cases. I think I would if he had been accustomed to do much of it.

Q. Do you know how he estimates the depreciation of machinery?

A. No sir.

Q. Do you know what he estimates the depreciation on the whole plant per year?

A. I do not think I have ever run across any figures from Mr. Dougherty. I do not think so.

Q. And yet he is the greatest statistician on industrial operation of gas plants there is in this country, is he not?

A. No sir. I would consider Mr. McMillin a better authority.

Q. He is the man who does the work for Mr. McMillin, is he not?

A. Well, Mr. McMillin has been gathering from these companies for many years complete data. I don't know what his company set aside for depreciation, a few years ago, 5 cents a thousand feet, three or four cents for repairs, an average of 2.8 cents is all that he set aside.

248 Q. When did he do that?

A. In the returns to Carol D. Wright, the U. S. Commissioner of labor, and it was published by the U. S. Government at Washington and he gave an itemized statement of his whole ten or fifteen plants, whatever they were, and grouped them together, they had aggregate sales of three billion feet, I think.

Q. What date was that?

A. It appeared in a report of a U. S. Department of labor, of 1899 the report of Gas Water and Electric Light. It did not appear as his companies but it was his companies.

Q. Did it not appear as his companies?

A. It appeared as a group owned by a syndicate. Mr. McMillin did not give it as his companies, but it appeared later that it was, and he and I talked about it, laughed about it, that it was his companies, and he wondered how it got out.

Q. But as a matter of fact his experience in Madison, in Denver and his experience as a manager in Lincoln, and St. Joe, and Detroit and Milwaukee, and St. Paul, since that, has demonstrated that the amount that he then estimated on the basis of business that he had previously conducted was wholly inadequate, did it not?

A. I don't know.

Q. This is the latest figure you have?

A. I know that a year ago he told me that on account of the raise in the price of labor and material, his figures of that date should be raised somewhat, but it was 8 cents then for the aggregate of repairs and depreciation.

Q. And that included companies in the cities of the size of Milwaukee and Denver?

A. Nebraska City and Atlantic City, I think, I know the average was about—

49 Q. You do not mean to say that McMillin ever dealt at Nebraska City?

A. I believe that was one of his companies but I am not quite sure. At I remember there were 12 companies that had that average, I have forgotten the name now, the 12 places, but they had an average of 251,000,000 feet of sales. I am not absolutely certain whether Nebraska City was one of them or not. I have the list at home I did not bring it with me.

Q. I guess Nebraska City was his first plant, and he went broke on that and got rid of it.

Witness excused for the present.

It being now 12:00 o'clock, an adjournment was taken until 1:30 p. m. same date, May 9, 1908.

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1:30 P. M., MAY 9TH, 1908.

The parties met pursuant to adjournment and the following proceedings were had and done.

EDWARD M. BEMIS was called and cross-examination resumed.

Examined by Mr. ROSE on behalf of the plaintiff:

Q. According to the company's actual experience in 1907, what would have been the decrease in the company's revenues if the same quantum or output of gas had been sold at the net rate of one dollar, and an additional tax burden of $2\frac{1}{2}$ cents per thousand feet had been imposed on the company?

A. It would be the actual sale, 179,366,000 feet multiplied into reduction which would be 22.5 cents, that is, 20 cents reduction and $2\frac{1}{2}$ cents tax rate as I understand the question that would have meant a reduction of \$43,507.35 if there had been no increase in output.

Q. Now you think a reasonable rate of interest on the company's invested capital here would probably be 7 per cent?

A. I have thought so. Six per cent I reckoned in Iowa in the Cedar Rapids case; it struck me this morning that 7 per cent would be proper here, altho 6 per cent at the start with the idea that there would be growth, might be right.

Q. And an item to take care of a depreciation of \$10,000 would not be unreasonable?

A. Between \$8,000 and \$9,000 would be more reasonable.

Q. Well, from what you have learned of the condition here, you would not regard \$10,000 as unreasonable, would you?

A. A little high.

Q. Would you regard it as unreasonably high?

A. I think it is too high.

Q. Now on the actual experience of the company in 1906, 251 what would have been the reduction in the company's revenues if they sold the same quantum of gas at the rate of one dollar, and had an additional tax burden of $2\frac{1}{2}$ per cent on their gross receipts?

A. My attention is called to the fact that I used the wrong sales in 1907, in giving an answer to your previous question. Instead of 193,366,000 of sales, it was 179,366,000, so that a reduction of 22.5 per cent on that would not be quite as much, it would be \$40,357.35.

Q. Now you may give me your computation for the year 1906 on the same basis?

A. The sales that year being 153,633,000 feet or for short call it 153,634,000, that multiplied into 22.5 cents would give the answer to the question, which would be \$34,567.65.

Q. Now why did you use a term in the future in this case as a basis of your theories of possible savings or economy, when there are periods of time which are not so remote, and through which the company would have to administer its affairs under this ordinance? If the rates were allowed when it became effective by the ordinance?

A. I don't understand your question. I took 1907. Do you mean why I took 1907 instead of 1906.

Q. No, you take 1908 as a basis of what probably could be saved in economy by applying your theories of economy in management?

A. Based on 1907, however, based on 1907.

Q. You gave a prediction of what the experience of the company would be for the ensuing year?

A. Yes sir.

Q. Positively you gave that?

A. Yes sir.

252 Q. Estimating 200,000,000 of output, and the like of that?

A. Yes sir.

Q. To call your attention specifically to the matter that I am directing you to, you took the year 1908, and suggested that if this rate was put into force in 1908, instead of when the ordinance took effect, that the company might well save something on their expenses on new business, that they might well reduce the lost gas that they might well reduce legal expenses?

A. Yes sir.

Q. Now you recall the incident to which I refer?

A. Yes sir.

Q. Those of course were a prediction on what might occur in the year ensuing?

A. Yes sir.

Q. And yet a full year has actually elapsed since this ordinance in controversy here by its terms has gone into effect, and more than a year; why would you want to exhibit or predict what might be

accomplished at a period so remote from the taking effect of the ordinance?

A. Because the result of reduction in price of sales could not appear in 1907, if there was no reduction in price in 1907.

Q. Well, theoretically, where you are making a mere prediction you could make it on the year 1907 assuming the changed rate the same as you could 1908, couldn't you?

A. I would have to assume larger sales in 1907, if I had assumed a rate of \$1.00 in force.

Q. Why certainly just as you did assume larger sales in 1908; but you could have taken the company's actual condition at the date the rate went into effect, and could have predicted what savings there could have been if the new rate had gone into effect in the year 1907, couldn't you?

53 A. Yes sir.

Q. And you would then have made your predictions upon the possibilities as you found them for a period of time nearer and not so remote from the date when the ordinance went into effect?

A. That is true.

Q. And that would furnish a surer test of whether or not the ordinance would have thrown the company into insolvency in 1907, even before the year 1908 had ever been reached, wouldn't it?

A. It would have had a greater bearing on the year 1907, but not on the prospects of the four or five years during which the ordinance is supposed to operate.

Q. Well, it is supposed to go into effect January 1st, 1907, so that it would have been in effect but for the restraining order issued in this case during the whole of the year 1907? Now you don't mean to say that the company could have stood a loss of \$40,000 of its previous earnings do you, you haven't gone into that, have you?

A. I haven't studied at all the effect on the payment of interest on the bonds. I have only considered what was a reasonable return on the structural value.

Q. You have read our testimony in this case, haven't you?

A. I believe I have.

Q. And you found that to be the theory of the plaintiff too, didn't you?

A. I believe I have, yes sir.

Q. That is the theory of the courts, and none of us dispute that here?

A. I say I have not considered the question you asked me about.

Q. And you had not considered whether the capital invested would have gone without returns either, did you?

254 A. I considered the structural value to represent the investment in the sense in which I used the term.

Q. Now if you had jumped still further into the future at a point still more remote from the date at which the ordinance took effect, and anticipated the growing consumption of the city, you would be almost sure to find a point where reasonable, you could predict with certainty that a dollar gas would be lawful rate in Lincoln, wouldn't you?

A. If I went ahead in time the larger the profits would be, of course?

Q. You would predict that the sales of the company would steadily increase?

A. Yes sir.

Q. That the efficiency and permanency of the plant would be better?

A. Yes sir.

Q. That the element of depreciation would lessen as the company reached an equipment that was adequate to the city?

A. Yes sir, and more nearly standard in its character.

Q. And you don't pretend to say that the requirements of price would necessarily be the same in the year 1907 to this company that it would in 1908, do you?

A. No sir, it would change from year to year.

Q. So you have taken a year remote from the date that the ordinance goes into effect?

A. I took the year following this, 1908, to that extent remote one year remote.

Q. As a statistician, and whatever observations you have made in this line of this industrial enterprise, I want to ask you in order to make the equipment economical and meet the requirements of a plant like this, it is essential that the company have got credit.

255 A. Yes sir.

Q. And earnings in relation to the invested capital must be shown favorably in order to command money for such investments?

A. Yes sir.

Q. In order to command money for such investments the earnings in a plant like this must show a greater return, and greater actual earnings on the invested capital than seven per cent; even though no more than six per cent is actually distributed in dividends, isn't that true?

A. No, I believe a property that earns seven per cent, will sell at par.

Q. A gas property?

A. Yes sir. In the east five per cent will make them sell at par.

Q. You spoke of the McMillin properties that is the strongest organization in the gas field, isn't it?

A. I don't know that it is any stronger than the properties of the U. G. I., not as numerous.

Q. McMillin's connection with the company gives it additional financial strength, does it not?

A. Well, it has large strength.

Q. And its president gives it additional strength?

A. Yes sir. I could not compare it to the larger and better known company, known as the United Gas & Improvement Company.

Q. Now his stocks for the last eight months have sold way below par, but the earnings are above seven per cent, haven't they?

A. I am not aware of what they sold for. All stocks have been low during these hard times, last year I know—

Q. You do not mean to say that they undertake to place any value on their stock on an earning basis as low as seven per cent?

A. In ordinary years they do, I don't know how it is in these.

256 Q. Are you sure of that?

A. Why, I know this from a careful study of all of the gas stock sold on the New York market before the panic. I made up in connection with the New York Consolidated Gas case a report. I found that stocks that had been earning six per cent, and bonds that had been earning five per cent say, in all of the leading gas companies, with one exception, namely, Buffalo, had been selling at par for the previous two years, and they netted the investor that amount, they netted the investor only from five to six per cent.

Q. That is where the investor actually withdrew in dividends from five to six per cent?

A. Yes sir.

Q. Is that true of the U. G. I. stock, the United Gas & Improvement stock?

A. I think it was true during the two years I made an investigation of that stock.

257 Q. What two years was that true?

A. 1906 and 1907, up to October, when I think I made the investigation in New York; the panic came soon afterwards.

Q. Don't they have 8 per cent. stock out that today is selling at 92 points on the dollar.

A. I do not know the market today.

Q. Does not the stock of that company actually return to the investor 8 per cent?

A. If so it is a great exception to the rule. Buffalo was the only company when I made the investigation.

Q. You instanced that company as one that payed five to six per cent?

A. Yes sir.

Q. Now I am asking you if you did not err in that?

A. I do not think I did, as to last year, but what is it now, I do not know.

Q. Have they not had outstanding stocks all the time?

A. Yes sir.

Q. That returned the investors 8 per cent dividends instead of 5 or 6 per cent.

A. Well if they did,—and I do not deny that at all, the stock was selling at a premium in the market usually.

Q. When did it sell at a premium in the market?

A. I do not recall that particular stock but it must have been done because I included all the stock in my investigation. Buffalo was the only case of 30 or more of the gas companies that were dealt in in Wall Street, that did not sell at par on a 5 to 6 per cent dividend or interest. That is a year ago.

Q. State if in all of those instances where the stock ran to par if the company was not obliged to show an additional earning to go into the plant over and above what was withdrawn in dividends?

258 A. In most cases they made no showing at all, they were dealt in in the stock exchange, without knowledge of anything more than the declared dividends and interest. The U. G. L., and most of these companies do not give full reports.

Q. Now what I am asking you is if you know the facts as to whether any one of these companies that return a dividend to its investors as low as 6 per cent that reached par; was there a company that did not in fact earn a large additional dividend that remained in the plant?

A. That may or may not be, there was nothing published——

Q. I ask you if you know?

A. I do not know. I have not the information. I think some of the companies earned, or put into the plants, but which ones or how much I do not know.

Q. I understood you as a statistician, you freely concede that no particular year can be taken as a basis?

A. Yes sir.

Q. Where you use statistics you take all the experience you can get?

A. Yes sir.

Q. Wouldn't it be a very hazardous commercial enterprise in a business of this character that had to deal with municipal bodies subject to the regulations of rates to distribute in any year all of the earnings and dividends?

A. Not if the company had what I would call a sound financial status, was not trying to earn more than they could justify in a hearing as to its structural value. I do not think people in other words, are essentially unjust and unfair in their attempts to regulate rates. As soon as they know the facts I think they are quite generous to corporations.

Q. Now do you think that is a specific answer to my inquiry?

259 A. I don't see how I could answer it without making a general statement of that kind to explain it.

Q. Let me ask it in another form then. Do you think that if a company showed that its entire earnings for the year were distributed in dividends and were all required in order to distribute a dividend at 6 per cent that such a stock as that would command the money of investors in this business anywhere in the world?

A. I think so yes sir.

Q. Do you think it would in this country?

A. Yes sir.

Q. What place in this country do you think that those conditions would command money at par for stock?

A. Well there has not been a single stock or bond issued for 10 years, by a single Massachusetts Company that has not been authorized and the rate fixed and there has not been a single issue on more than a 6 per cent basis for years in Massachusetts, they do not allow it. In other words, if the stock is paying 12% they will fix a value of 200 dollars or three hundred dollars on the stock below which it cannot be sold, and the bonds cannot pay generally over five, never

over 6, and all the gas companies of Massachusetts have financed themselves under those orders of the commission for years.

Q. That is to say they cannot pay out more than six per cent dividends.

A. I am talking about new stock issues, they cannot issue any stock in Massachusetts nor any bonds without the commission approves it, and the commission fixes the minimum market price at which that stock and bonds can be sold and they fix it so that it does not net over six per cent.

Q. And yet the actual capital invested, or replacement value may be shown to be much in excess of the total stock values even at the high rate?

260 A. Yes sir, but they do not issue dividends—the dividends and interest do not amount to over 23c a thousand foot, as I said this morning but they may put back into the plant some additional surplus.

Q. But in actual practice it is not practical to run a plant of this character on a basis that consumes all of the earnings in dividends is it?

A. I think it is, but I do not think it is necessary under my testimony this morning except for about a year, while the ordinance presumably would continue for several years, because my testimony this morning was based on only 1908—I mean 1907.

Q. How long do you presume it would continue?

A. Why I would presume it would continue for a period of five years.

Q. Why do you presume that?

A. Because rates are not changed by city councils, generally speaking in the U. S. oftener than that usually. They have not been changed anything like as often.

Q. As a matter of fact the company could probably stand a cent or two cents reduction each year couldn't it, at its present output increase?

A. Yes sir.

Q. You know the council would not have the power to take away the right of the next body to regulate the same as they have?

A. Yes sir. As a practical matter the councils do not do it every year, or two.

Q. You never yet have watched very closely the temper of the council of Lincoln have you.

Mr. STEWART: The defendant objects.

Q. The standard of quality is subject to change too, is it not?

A. Yes sir, certainly.

Q. Do you know of Professor Marks?

261 A. Yes sir.

Q. Have you ever had your attention called to the standards of earnings that he suggests in order to bring the stock to pay?

A. Yes sir.

Q. And what is that?

A. Well I think it is something like 8 per cent, but I am not sure of it now.

Q. Well in fact was it not just exactly 15 per cent?

A. Fifteen per cent, as I thought was intended to include a lot of other things, depreciation etc., and he has taken that back in the last few years.

Q. Still in his latest addition of his works the same thing is in?

A. He says it applies only to small companies or something.

Q. Does he not say in his preface that that is a suggestive basis, and no one can tell definitely what would be the actual experience in practice in any particular locality?

A. I have it but I have not read it. I know it was discussed in my presence a good deal in New York.

Q. And that standard of 15 per cent has not been changed in any addition of his works has it?

A. I don't know I will take your word for it.

Q. And he is a man who has rather been on your side of this case, kind of letting his services to pound down rates?

A. Yes sir, he was associated with me in New York case and the Buffalo case, are the only ones he has ever been in with me, but I do not attempt to swear to all of his conclusions, nor he by mine.

Q. He is as good an authority as Mr. Latta, whose hand book you refer to, is he not?

A. What I refer to as to Latta, was correct and I will not take that back.

Q. He is as good an authority as Mr. Latta, the author of
262 the hand book you mention.

A. On that point he is not as good an authority as Latta's quotation from Lewis.

Q. He ranks a great deal above Mr. Latta does he not?

A. As an engineer he does yes sir.

Q. The fact is he is quite a prominent man, and Mr. Latta is obscure and has worked for small wages for Mr. Dougherty for a long while?

A. I will take your word for it, I don't know anything about it.

Q. Now touching the item of pressure as affecting the waste from leakage, the gas that may be wasted after it goes through the meter would cut no figure on the company's net waste would it?

A. No sir.

Q. That would not be a waste to the company would it?

A. No sir.

Q. That would merely be a booming of the sales?

A. Yes sir.

Q. Which of course if done with ill intent would be very wrong indeed we all concede that. Now what knowledge do you have of the burner equipment compared with the burners formerly in use?

A. Not very much, of course I have heard it discussed a great deal and of course I have used gas burners all my life, but I am not an expert on gas burners and do not set myself up to be at all.

Q. There is a burner for fuel consumption, stoves and the like that mixes the air with the gas, before it is burned, that is true is it not?

A. Yes sir, they have mixers. I have one on my own gas stove.

263 Q. And they are in common and general use now?

A. Yes sir.

Q. And regarded as the best appliances?

A. Yes sir.

Q. And generally speaking the mantle burner has taken the place for illuminating purposes, of the open gas jet?

A. Yes sir, to a very large degree.

Q. And is a more efficient burner?

A. Yes sir.

Q. And those mantle burners have a device also for mixing the air with the gas before it is ignited?

A. I believe so yes sir.

Q. Presumably a great deal of the largest per cent of the actual quality of the gas that is now used have appliances for mixing the gas with the air?

A. Well of course I know nothing about the burners in use in Lincoln, or the proportion of burners equipped with mantles but in general in the country I think that you would find one half of the burners of the town without Wellsback mantles.

Q. But the one half of the burners would be burners that were in general use the burners equipped with mantle burners are those that are used more constantly?

A. I believe so. It varies wonderfully in different cities. It is astonishing what a difference there is in that respect as to the proportion of Wellsback burners.

Q. And somewhat on the policy of the company if they are aggressive in their business campaign?

A. Yes sir.

Q. And making the use of gas attractive and up to date?

A. Yes sir.

Q. And if so that community will adopt the mantle burner?

A. Yes sir.

264 Q. Now I want to ask you this question. Isn't a higher pressure than the ordinary an advantage where the gas is mixed with the air before being ignited, and doesn't it increase the efficiency of the gas?

A. Yes sir, at least to this extent, that it is found desirable to have the pressure higher now than formerly, when the open burner was used.

Q. The air mixes better, and there is more air used in connection with the gas if there is a little higher pressure than they used to require in the open burner?

A. The results are better on the whole, just what brings it about I am — sure, but it is the general agreement among gas men, that the pressure should be a little higher than formerly, thought desirable.

Q. So the minimum pressure of one and one half inches would hardly be practicable any more would it particularly in Lincoln?

A. One and one half inches will work pretty well but two inches is better, 2 to four inches is considered about right among most gas men.

Q. Is not two inches pretty low where you have the air mixing device on the burner?

A. For a minimum I was speaking of, when I said one and a half or two inches, and four inches for the maximum, doubtless the average would be somewhere near two and a half or nearer 3 inches and that is all right. But in an ordinance and to allow for the necessary fluctuation of pressure, you have to allow something to come and go on, so while two and a half inches or three inches might be a little better than either four or two you have got to have some margin.

Q. Have you ascertained what the maximum is here from actual practice?

265 A. I was told by one of the company, if I understood him right when I went to the works that at that time it went up to seven and a half at the city hall. I may not have understood it right, it was either Mr. Honeywell or Mr. Adams, but I have been trying to get the record for some time and find they have just arrived. I have not examined them yet.

Q. Now when the consumption reaches the high point or the peak in this particular system, it would really be impossible to give an adequate supply through some of the mains without approximating the pressure which is reported to you would it not?

A. With the present size of mains you mean?

Q. Yes sir.

A. I would think that was possible with 65 per cent of the mains, 2 inch mains, I would not be very much surprised with such a result at times.

Q. That is, otherwise there would be a low pressure that would not give an adequate supply at the burner?

A. Yes sir.

Q. In all of those services where the main is adequate in size?

A. Seven and a half is high and it may be that even with the present mains that they could get along without getting quite as high as that.

Q. You would not say positive?

A. No I would not be positive about it.

Q. The test of actual experience would be the best test?

A. Yes sir.

Q. The local engineers who had charge of the distribution, would be able to inquire into and inform himself of the condition.

A. Yes sir.

266 Q. He is the man to whom the complaints of the inadequate supply would come?

A. Yes sir.

Q. So in a case of that kind you could not put any pure theoretical proposition against the test of actual experience?

A. Well you could require the company to keep its pressure below that, and leave to them the means of accomplishing it, which of course would mean some reinforcement of mains.

Q. And that would require as I have said before the investment of additional capital which would have to produce a revenue to the investor.

A. Yes sir there would have to be some additional capital, I would think but by means of these high pressure mains, these three or four inch mains will frequently carry gas for a large amount of reinforcement.

Q. Now on this pressure proposition, do you say that the waste of gas rose to as high as 16 per cent, in this plant?

A. Yes sir, a year ago.

Q. What time was that?

A. The average loss in 1906 was 16 56/100 per cent according to the report of the company, that is what I refer to for the year 1906.

Q. Extraordinary circumstances or some extraordinary occasions might increase that. Outside of the leakage might it not? There might be a broken main, there also might be a pilfering or secret tapping of the mains somewhere?

A. Yes sir.

Q. And that is a thing that in some communities does occasionally occur?

A. Very rarely I am sure.

Q. You have never known it to occur?

267 A. I have never known it referred to in a single gas case that I have been in, but of course I can imagine that it could occur.

Q. As to that for this company I have had to trim up a few of our pilferers of gas, and the gas unaccounted for here, includes the gas that is stolen?

A. It naturally would do that of course.

Q. And that might be discovered and corrected?

A. Yes sir.

Q. And of course at times it would be discovered quickly and at other times the parties would be able to hide it for a long time, maybe a year, allowing the meter to measure at a certain period, and hide and conceal the fact that they were stealing?

A. Do they monkey with the meter or tap a round?

Q. Tap a round and sometimes monkey with the meter, if they know how, and sometimes puncture it. In the year 1907 that was reduced was it not?

A. Yes sir, it went down to 11-84/100.

Q. Now I want to ask you if the records of this company show so far as you have examined if they do not show, that at this period of reduced leakage, there was actually an average increased pressure at the holder?

A. I have no records of the pressure at the holder, so far as I am aware. They may be in these reports, if so I have not noticed them.

Q. Now let me ask you another question. By increasing the pressure at the holder it is possible to deliver a greater quantum of gas thru the same main is it not?

A. Yes sir.

Q. And the fact that the quantum is increased per mile of mains would tend to compensate somewhat for the increased leakage would it not?

268 A. I think I don't understand that question.

Q. Well then I am trying to follow your own theory, the leakage should be proportionate to the extent of the main in a measure?

A. Yes sir.

Q. If you make a delivery of a greater quantity thru that same main that would tend relatively to lessen the loss per thousand feet?

A. Yes sir.

Q. And it would tend to compensate the loss by the increased leakage at any one particular joint?

A. Except as the increased pressure might itself increase the leakage.

Q. I say it would tend to do that?

A. Yes sir, it simply would distribute the leakage over a greater amount of gas.

Q. So you could imagine that the pressure might be increased as this record shows here somewhat, while concurrently with that increase if it was due to an actual demand, the leakage per thousand feet was decreased?

A. That might be for a leakage may be due to other causes.

Q. There might be a broken main or a leak from explosion?

A. Yes sir, or as you say less stealing.

Q. Or there might be a fire that destroys or opens up a gas pipe?

A. Yes sir.

Q. That would cause a great deal of leakage?

A. Yes sir.

Q. And those things are unavoidable?

A. Yes sir.

Q. Now in respect to the companies' working capital, do you mean to give it as your deliberate opinion here in this record that the properties acquired by the companies on credit do not constitute in every instance a portion of the invested capital?

269

A. No sir.

Q. If \$50,000 worth of supplies are unpaid for and the company owes for them it has nevertheless that additional amount of invested capital in its business, has it not?

A. Yes sir.

Q. Then why do you assume that the company does not pay interest on this large sum of accounts payable?

A. Because in other companies, where similar accounts have appeared they did not, it was merely a credit on two or three months that they were granted in buying. So far as this company does pay interest why of course it would not be deducted from the working capital.

Q. As an actual item of invested capital it ought not to be deducted rationally in any event, should it?

A. Yes sir. I think so.

Q. Ought it not to be added to the working capital?

A. No sir.

Q. Just the reverse of what you stated?

A. No sir, so far as the company does not have to pay interest. I do not see why it should have to make the consumer pay interest.

Q. What is the whole cost per month to this company, for its expenses running expenses and operating expense?

A. I have not looked into the electrical light end at all.

Q. The gas end?

A. I should have to work backwards by taking the yearly receipts and deducting by twelve.

Q. Taking the yearly cost to see what it cost them per month, take 1906 for example, the cost of manufacturing and distributing. What are they per month in the year 1906?

A. The operating expenses for 1906 are given as 127 thousand dollars, and of course it would be a little over ten thousand dollars per month.

Q. Well then a floating indebtedness of \$50,000 would not be covered by the current bills of sixty days' credit would it?

A. It was suggested this morning that part of that \$50,000 was probably part for the electric light, and, probably two thirds for the gas.

Q. You are the only one that suggested that, you suggested that without any basis at all did you not?

Mr. STEWART: The defendant objects, I suggested that to him, myself.

Q. Now Mr. Wiggins did not testify that that \$50,000 was all did he?

Mr. STEWART: The witness said he did not know if Wiggins said that.

Q. You have no warrant personally for apportioning any part of that \$50,000 to the electric department have you, you have no definite knowledge on the subject have you?

A. No sir.

Q. Nor the \$35,000 the previous year?

A. No sir.

Q. And did you read the testimony of Mr. Honeywell?

A. Yes sir.

Q. Now calling your attention to his testimony that he had to borrow at 7% interest giving optional pledges of privileges on stock, and also securing it by the bonds of the company at 2 for one, that they had to raise to meet that very item, \$40,000, at one time, to save the credit of the company, for which they paid that large rate of interest,—or did you read that testimony of Mr. Honeywell's?

Mr. STEWART: The defendant objects as improper, and as being an assumption of the counsel.

Q. Did you read Mr. Honeywell's testimony in relation to the subject and do you recall it now?

A. I recall now that you mention of something on that subject, but just what it was is not clear.

Q. To keep the company in good credit, a company of this size, and with the output of this company, is it not essential that they pay their bills more promptly, so \$50,000 in bills will not accumulate?

A. I believe if \$50,000 was for gas only, it was too high.

Q. It would be too high if it was the gas and the electric light company would it not?

A. A little.

Q. Five thousand dollars' indebtedness for current bills is plenty for this company, is it not?

A. I would think on the gas department that a more reasonable allowance would not be over \$20,000.

Q. Would not a still more reasonable allowance be down to Five thousand dollars?

A. It is very common for companies to have too much credit in buying supplies.

Q. And it is to the interest of the company in acquiring supplies in this way to have the cash to discount its bills the same as the successful merchant is it not?

A. They often do that.

Q. They could save money by having all of that capital to pay out at the time of delivery for every thing could they not?

A. I think so.

Q. Instead of having an indebtedness of even \$5,000, 272 they should keep a credit balance of 5 or 10 thousand dollars constantly to meet the bills on hand, should they not?

A. One would think so, and yet it is essential that many companies in good standing do have a whole lot of outstanding bills.

Q. Now there is no way fair to rub out this item of working capital is there? It is a legitimate item of the companies' invested capital, is it?

A. So far as it pays interest on it, I should not deduct it.

Q. So far as it is employed to carry on the business of the company it is legitimate is it not?

A. I would deduct from it the part it does not pay interest on, because if it does not pay interest why should the public?

By Mr. STEWART:

Q. You mean the credit part?

A. Yes sir.

Q. Well now if we cannot agree on that let us take another way of stating it.

Suppose you allow for 60 days' supplies that according to the way you figure it there, at \$10,000 a month, for total expenses, would amount to twenty thousand dollars?

A. Yes sir.

Q. It would still have a large amount in equipment from time to time and current supplies, permanently invested in wagons and horses, pipes, fuel and oil.

A. Yes sir.

Q. And must necessarily have it to carry on its business?

A. Yes sir, that is right.

Q. Now of course that property is physically valued here subject to a tax burden?

A. Yes sir, the taxes of course are included in the operating expense, all the taxes.

273 Q. That would be subject to a tax burden and if the company had the money on hand and had that equipment free of debt, it would have to be accounted into the invested capital would it not?

A. Yes sir.

Q. Now do you know any fairer way than the method that you have yourself laid down here, which is to calculate the physical values of the properties, to ascertain what the necessary invested capital is?

A. I adopted the fairest method I know of.

Q. How could you compute the physical value of the properties without accounting in it supplies on hand necessary to carry on the companies' business?

A. It must be included but there is a set off against it I say, I should take in the other.

Q. You would say also that it would be convenient and desirable for the company to carry a credit balance of 5 to 10 thousand dollars in the bank for the purpose of meeting its bills would you not?

A. It would be desirable.

Q. And that is a legitimate part of its invested capital is it not?

A. If it does so, providing it has it there.

Q. Now I want to recur to one subject I have not gone over, the promotion of new business item of expense. Is it not true, that upon putting into effect a reduced rate of charges good business judgment will require the company to employ more men in its new business department, and increase the promotion costs in order by expanding the sales, to in a measure compensate for the reduced price?

A. Yes sir, unless the town has already been pretty thoroughly canvassed.

274 Q. Well as a general proposition is it not true that the legitimate course suggested upon the taking effect of a reduced rate is to canvass over again your own patrons, and endeavor to induce them to employ new devices and use the gas for new purposes?

A. That is quite common for a few months.

Q. And it is the only reasonable and sensible thing to do is it not?

A. I would advise it for a few months and then I do not think it necessary any more.

Q. Then the immediate effect so far as the effects of putting in reduced rates are concerned would be to increase instead of decrease the promotion charges?

A. Not to increase, in view of the amount this company has spent for it.

Q. You would not say you could decrease it under those conditions the first year?

A. I think you could by the end of the year.

Q. I am talking about the first year that it went into effect. You would not advise it to be reduced as a matter of fact would you?

A. I think not the first six months, then I should.

Q. Now you would advise it though to be increased the first six months would you not?

A. Not above this rate, $7\frac{1}{2}$ cents.

Q. Now the reduction in lost gas, that is only a theory is it not, and not actual practice. No one could tell whether you could reduce it or not in a given year?

A. Not in any one year perhaps, altho the company itself—the company itself had a lower leakage and unaccounted for gas
275 in the year 1903, 6-84/100 than I allowed in my computation which was seven per cent.

Q. Now I think while that is carried on the report, I do not know as it is explained, but I think there was for a season there when the station meters did not register right and that was approximated, I do not think that that is the actual measurement, that of course is not your mistake however. I just call your attention to that. Now you would not hardly quibble over $\frac{1}{2}$ a cent a thousand for legal expenses, in a town of this sort, with conditions such as we have here.

A. I considered that it was higher than the average, and I was entitled to take the average it is not much, one half cent is not much.

Q. Why are you entitled to take the average here now? Is this an average plant?

A. I mean the average experience of the company on legal expenses for several years gives a better idea for one reason than one year and second the average of the entire sixty companies in the state of Massachusetts is only what I talked about, one half cent less, about what I took, about 6/10 or 7/10, 6/10 per thousand feet of sales.

Q. Now in Massachusetts do they use the same number of water heaters in bath rooms and the like of that that they do here?

A. I am talking about legal expenses. I do not know what that has to do with water heaters.

Q. Now no man can estimate with any definiteness what the experience of the company concerning litigation will be can they?

A. No sir.

Q. For instance this company may go along under normal conditions and pay an attorney a thousand dollars a year
276 to look after its work and yet a year will come up where extraordinary demands are put upon them in their legal department and they have to hire assistants.

A. Yes sir.

Q. And have to take evidence?

A. Yes sir.

Q. And sometimes have to employ experienced engineers to testify and pay them money for it?

A. Yes sir.

Q. Do you know whether conditions of that kind will arise again or not, do you?

A. No sir.

Q. And when they do arise they have to be taken care of?

A. Yes sir.

Q. And of course that one half cent per thousand feet for that item, is not extravagant.

A. (Not answered.)

Q. Now the item of the retort house labor for the coal gas is it unreasonable that they vary per thousand feet according to how much coal gas they make.

A. Well with an increase in coal gas from fifty nine million in 1905 to sixty nine million feet in 1907, the cost per thousand feet would not ordinarily and normally increase 60% per thousand feet?

Q. Well suppose that by actual experience it showed that it did increase that way, you have to pay for it just the same don't you? Is it not true that the efficiency of labor varies, stokers?

A. I cannot see how it would vary anything like that.

Q. Does it vary at all.

A. Oh yes.

Q. Sometimes new men have to be employed?

A. Yes sir.

277 Q. Without experience?

A. Yes sir.

Q. And that makes reduced efficiency of labor?

A. Yes sir.

Q. Sometimes they reduce the number of men working at that department and make a smaller amount of gas and that relatively reduces the efficiency of labor?

A. Yes sir.

Q. There are variations that will necessarily manifest themselves in an item like that?

A. Yes sir.

Q. Now do you claim that the gas department did not in fact get credit for all the residuals in 1907?

A. I think it was charged in the store room account, or stock account but did not appear in the report of the cost of gas.

Q. Well was not the actual credit to the gas department the whole sum of the residuals in one form or another?

A. But not in this report which we are talking about and which 79c appears as the total operating cost per thousand feet. In the years to come sometime or other when they readjust their stock account, they will all appear, but as to the year 1907 I did not think the profit does appear fully.

Q. Now a part of this stock that is entered here in 1907 may have been stock on hand at the beginning of that year?

A. Yes sir.

Q. And the system of accounting here, will clear it all up, year by year will it not?

A. I think there should be a yearly adjustment, and there was not one apparently, so as to cover the net profit or loss from the stock account, into the operating expenses.

278 Q. Suppose the previous year had not had credit enough?

A. It is quite possible that some years had a higher operating expense than appears in these reports.

Q. So that the making of the adjustments this year might do an injustice to the previous year?

A. No sir.

Q. In order to have had any accuracy about that it would have been necessary to have made the adjustment at the first of the year and also at the close of the year.

A. There should be one made every year.

Q. I say in order to apply it exactly to each year, there must have been an adjustment of that sort made at the beginning of the year as well as at the close of the year?

A. Well I practically did that by taking the entire amount made of tar and of coke and following it thru, the amount sold, or used, was not very different from the amount made, not enough as I said this morning to materially effect it.

Q. Now in respect to the depreciation of the plant, I notice that you took as a basis for the computation of the *tiems*, the depreciation the present depreciation value, for example of the buildings and holders, that is right is it not?

A. In one calculation and then in another I took your inventoried value.

Q. But expressing what you thought was a fair depreciation you went back to four cents again, the depreciation value?

A. Yes sir, that is right.

Q. And at the same time you asked to give the consumer the benefit of the interest upon the reserve, the contingent reserve fund for replacement or depreciation, you argued that both ways did you not?

A. Yes if I understand you.

279 Q. So that in each hypothesis you took the figures that counted more strongly against the company, did you not?

A. I took the figures I thought correct, the right method.

Q. And you took in each case the figures that you tho't would be to the interests of the city and against the company?

A. It was to the interest of the city but I think it was the correct method.

Q. Now you say it was the correct method. If you are going to allow the depreciation upon the decreased value from time to time then if you are going to allow that per cent, your reserve fund on your theory will only be sufficient at the end of the period to replace the depreciated value would it not?

A. Yes sir, that is right.

Q. I just want the calculation?

A. Do you want to know why?

Q. No, I just asked you if I was right in my deduction?

A. All right.

Q. Then over a period of years if you were to begin now on the depreciated value and estimate on that, when the 50 year period came around or the 30 year period came around, or the 20 year period came around, you would not have enough money to keep the original capital intact, and to keep the building there and of as great value, and to reconstruct the building of the same value as it was originally?

A. No sir, you would only get the present value back.

Q. And yet in the course of the years you will concede that it is the right of the investor to have his invested capital, kept intact for the whole period will you not?

A. Providing he has not eaten his cake as he went along as this company has done.

280 Q. Outside of that proviso you concede my proposition?

A. Yes sir, certainly; but if they have not saved a reserve fund they cannot ask the consumer to make up what they have used up in the last 40 years.

Q. Suppose they had done it, taken a reserve fund from the date of the construction, sufficient when invested year by year to bring us out at the end of the period when it will be useless scrap with actual capital equivalent to what we expend for the original structure; and now that we are at the 10th or 15th year, suppose that money has gone into the betterment of the plant let us assume that probably neither you or I actually know the facts actually, now we come to the fifteenth year, what is the basis of depreciation?

A. The original investment but not the subsequent renewal whereas now we have valued the subsequent renewals as the basis for starting today. But the proper system of book-keeping would do as you suggest, the company did not do it that way tho.

Q. So the company by some means should preserve unimpaired its original invested capital?

A. It should altho it may distribute it.

Q. And no fair system of depreciation charges or allowances can be devised that will not in the end preserve the original invested capital without impairment?

A. Yes sir, if they have put in the renewals not from surplus earnings but from new stock and bond issues then they cannot claim your theory.

Q. Well I just wanted to see whether you had not crowded a little there in favor of the city. You suggested yourself, as I understand that the company could more profitably invest that sinking depreciation fund, in the extension of its own plant, then it could to put it into savings banks or trust companies.

281 A. Yes sir.

Q. And if it could do so, then it would have a complete guarantee against loss too, would it not?

A. Yes sir.

Q. Now if it did that, we are coming now to the item of original invested capital in buildings, how can you figure out that under such circumstances we could not compute out depreciation upon the original cost through the whole period?

Q. You should if you did it that way.

Q. Now again, on the depreciation of machinery and the like of that you describe the process of manufacturing coal gas for me and include in your description of what the process is, the appliances and the equipments employed in it?

A. Well of course in a general way I can give that to you.

Q. Give it in its technical details so that it could be followed in actual practice by me?

A. Well I would not attempt to do it in its full details. I would not pretend to be competent to draw plans for a gas works, or a proper blue print, but I can give you a general idea of the process.

Q. I do not care for a general idea, we can all get that by the encyclopedia or something of that sort, but I want to know if you can describe with technical accuracy and precision, the process of making coal gas including every process of distillation of the coal, and every equipment for purifying and scrubbing and putting it in the holder?

A. I would not attempt to do that although I have read many such descriptions, but I would not attempt to do it.

Q. You would not attempt to describe the different machines that are employed in every detail of that process, would you?

282 A. Not to the extent you speak of, no sir.

Q. You would not even attempt to describe the bench or the oven and its process would you?

A. No, not completely.

Q. Do you know where you put the coal in the bench?

A. Oh, yes.

Q. Do you know where you put the furnace coal in?

A. It is usually put in below and the coal put in at the mouth piece thrown in, sometimes it is put in with machines.

Q. What is it you put in below?

A. Coke usually.

Q. Do you mean at the ground and underneath *ane* mouthpiece?

A. You usually put in the coke.

Q. Under the retort, underneath the retort?

A. Very commonly.

Q. At the floor?

A. Yes sir.

Q. Now that is the process you described in the presence of Mr. Adams here, and Mr. Stewart, when you went down to visit this plant did you not?

A. Well I don't think I described any process. I did not describe any process.

Q. Well you pointed out where they put the coal in under the floor?

A. I hardly remember what I described.

Q. And you had the process figured out in actual practice, what would be the ash pit, did you not?

A. Well that was the ash pit down there, but I did not pay much attention to that. I saw afterwards what I had done.

Q. The actual experience of this company so far as you gather it here from the testimony and reading of the record makes a
283 fifty year term for utility and life of any main in this particular locality altogether preposterous does it not?

A. No sir, I think that while 75 years would be long, if there is a serious damage to the mains from the soil and electrolysis, I remember what I have seen of the testimony and heard of it, I do not think it is unreasonable 75 years for mains, beginning with four inch pipe; but 50 years I am willing to concede might be reasonable

in view of the doubt as to the soil and electrolysis; but I consider that anything less than 50 years would be absurdly low.

Q. Do you take into account the question of inadequacy?

A. Yes sir, except the 2 inch mains have already depreciated on account of inadequacy about all they ever will I think.

Q. Do you take into account the 8 inch mains and the 6 inch mains have depreciated on account of inadequacy, do that they would have to be replaced with larger ones?

A. There will not be any large amount of them, there will be some, but those mains will be supplemented by a main on the other side of the street as I said this morning, and in some cases by removal.

Q. Now in view of the experience of this company do you think 15 years would be a fair average life of mains in this city?

A. I never knew of a company that had so short an average life for street mains as 15 years, nothing like it.

Q. Not for inadequacy?

A. No sir, not as low as that. There might be individual lengths half a block or a block; take the mains as a whole is what I am talking about.

Q. What do you know about the experience of growing western towns where they grow up very rapidly?

284 A. Well I have been through them a good deal of course I have lived in the west a good deal. I have seen them grow pretty rapidly, and I have seen the testimony in many of these gas cases, I saw one at Cedar Rapids and another at Saginaw not very long ago, especially Cedar Rapids they have grown rapidly.

Q. Nothing to compare with Lincoln?

A. Cedar Rapids has grown pretty fast, Saginaw not so fast.

Q. Now you say for the last seven years you have been superintendent of the Cleveland water works?

A. Yes sir.

Q. Is that a work that is operated by the municipality?

A. Yes sir.

Q. Is that your first experience in actual operation of industrial enterprises of this sort?

A. Yes sir.

Q. And your first experience in actual industrial operation, or management in your life?

A. Yes sir.

Q. And how old are you now?

A. Forty-eight.

Q. Your previous life was practically as a school man after attaining your education?

A. I was engaged in investigation, statistical work to some extent, for a few years before going to Cleveland, perhaps five years.

Q. Now who is your mayor there under whom you serve?

A. Mayor Johnson.

Q. Mayor Tom Johnson?

A. Yes sir.

285 Q. And he is a great advocate of municipal ownership?

A. Oh, yes.

Q. And makes it a political issue?

A. Well that might be, altho the water works were and have been owned since they were started in 1855 by the city.

Q. Now do you have a competent engineer in your office or department, aside from yourself?

A. Yes sir, two or three of them, several in fact.

Q. Are you a practical engineer?

A. No sir.

Q. You are not a practical engineer?

A. No sir, I do not claim to be.

Q. And the work of the architect and engineer in your department is largely done by the engineer?

A. Yes sir, my work is more supervision of the statistical end and keeping the costs, and looking after the work seeing to the appointment and the efficiency of the men, and a great many questions as to the policy.

Q. And taking care of the matters of the publicity of Mr. Johnson's theories?

A. In the water works? I do not have anything to do with that.

Q. Well you are engaged in that are you not?

A. I do not know what you mean exactly.

Q. You are engaged in exploiting Mr. Johnson's Theories of Municipal Ownership, and reduced charges for public services?

A. I think that my views on the subject were all printed before Mr. Johnson ever thought about them.

Q. And because they were kindred to his own he called you to his service when he became mayor of Cleveland.

A. I do not know. We had been personal friends for some time. I suppose tho that all has or had an influence.

286 Q. Now your principal experience other than in the actual engineering and operating problem of gas companies has been as a witness testifying against the companies?

A. Well I have done a good deal of other work as I said. I was on this Investigation Commission for the National Civic Federation that took about two years. It took about one third or my time each year, and I made a study of the municipal street railways and lighting companies of Chicago for the State Board of Labor.

Q. You were on that commission as a partisan in favor of municipal ownership as against private enterprize?

A. Why I do not know as I was on as a partisan, I was known to be friendly to it.

Q. And in your services that you have rendered to various municipalities you have always appeared and testified against the rates that the companies were seeking to maintain?

A. I prefer to say that I have appeared in the interests of the city.

Q. In the interests of the cities to sustain reduced rates?

A. In the same way that gas engineers have appeared in the interests of the companies.

Q. And you appeared then in this case about just the same as a gas engineer would appear did you?

A. Why I suppose there is very little difference, I do not know that there is.

Q. And did you appear here for a compensation to be payed by the city?

A. Certainly.

Q. And a considerable compensation?

A. I do not know what you lawyers would call a considerable compensation.

287 Q. A thousand dollars?

A. Oh, I don't know as I ought to say as to that or not, I will if you think I ought to.

Q. It is a considerable compensation?

A. Well perhaps Mr. Stewart can tell better.

Q. And for the past few years you have derived a considerable portion of your revenues by testifying in just such controversies as this, haven't you?

A. I have done considerable work of this kind.

Q. You testified against the consolidated gas company of New York?

A. Yes sir, I have done a good deal of work there for two years.

Q. I believe that case has reached a decision in the Federal Court and also in the Court of Appeals?

A. It has gone to the United States Supreme Court now.

Q. It has been decided both in the Circuit Court and Circuit Court of Appeals?

A. I don't know whether the Circuit Court of Appeals has decided it, if it has I have not seen it. Judge Huff decided it and it was appealed to the United States Court of Appeals.

Q. You also testified in the Des Moines case here, and the Cedar Rapids case, did you not?

A. A good many years ago in the Des Moines case, 15 years ago I think, or 13 years ago.

Q. Now when you were serving the government in making statistical researches, what department were you attached to?

A. Well when I served the United States Government, I simply did some work three or four different times for the United States Department of Labor, but I was not studying the gas question then, I was studying the question of labor.

288 They sent me to Europe in 1900 to study technical questions.

Q. And was it under Mr. Wright's administration?

A. Yes sir.

Q. And the work you did for the United States Government in the matter of statistical research did not pertain especially to the gas problem?

A. No sir. I did some work for the state of Illinois and for the United States both.

Q. When you served the State of Illinois what work did you do there?

A. I was under the board of Labor there, I made an investigation in 1896 and 1897, and that is the only work that I ever did there.

Q. Now when you made your investigation did you do as you did

here go to the place and stay over night and reach your conclusions on the subject?

A. I lived in Chicago, I had been there some five years and knew the situation pretty well and lived there during the several months that I made the investigation.

Q. You would not think that Chicago would furnish any particular analogy to Lincoln would you?

A. Oh, not particularly.

Q. Nor New York?

A. No sir.

Q. Nor Milwaukee to Lincoln?

A. I suppose you could get a good many things in those cases that pertain to a case like this.

Q. But the ultimate results would furnish no close analogy?

A. No sir; in the smaller cities one would get figures more practical.

Q. Or in Toronto to Lincoln?

A. I did not work in Toronto. In Montreal I did some
289 work.

Q. That is a larger city than this.

A. Yes sir, a much larger city.

Q. And a much larger gas plant?

A. Yes sir.

Q. How long has the process of manufacturing gas been applied, and actual- practiced.

A. Way back to about the beginning of 1800 or 1807,—authorities differ as to whether Murdock or somebody else started it but it started in England and France about the same time.

Q. About the beginning of the 18th century?

A. At about the beginning of the 19th century, along in 1800 somewhere along there.

Q. It was applied in London and other places somewhat in the 17th century?

A. Not to amount to much.

Q. The process was known?

A. It was beginning to be developed may be.

Witness excused for the present.

290 Filed Jul- 6, 1908. A. D. Geo. H. Thummel, Clerk, By
J. H. McClay, Deputy.

C. P. WALTERS, being produced and duly sworn as a witness on the part of the defendant testified as follows:

Direct examination by Mr. STEWART on behalf of the defendant:

Q. What is your occupation?

A. Clerk in the water office.

Q. In this city?

A. Yes, sir.

Q. How long have you been there?

A. Four years, I think.

Q. As a clerk in the office, state whether or not there is a *guage* for testing the pressure of gas in this city?

A. Yes, sir.

Q. What is it; just describe it?

A. Describe the instrument?

Q. Yes, in a general way, how it operates?

A. Well, it is an instrument by which a constant record is kept of the pressure of gas in inches.

Q. Is that located in the city hall?

A. Yes, sir.

Q. How many blocks is that from the gas plant, about?

A. The gas plant is on 6th and N streets, is not it?

Q. Second and M streets?

A. About ten blocks.

Q. It is about three-quarters of a mile then?

A. Yes, sir.

Q. Now, how does that *guage* register, automatically?

A. Yes, sir.

Q. And how does it record it, what in?

291 A. In inches.

Q. And on what?

A. On a chart prepared for that purpose.

Q. Look at Exhibit 144 and state if that contains a record of that instrument?

A. It does.

Q. From the date indicated here, that is, December 28, 1907, to March 31, 1908?

A. Yes, sir.

Q. What are these figures at the top of this chart?

A. The hours in the day.

Q. And what is this tracing, this mark that appears irregularly over this chart?

A. It is the line made by a pencil which is held in the machine for the purpose of recording the pressure.

Q. And what do these figures on the left hand side of the chart indicate?

A. The number of inches of pressure.

Q. And the "7" at the top indicates what?

A. It indicates seven inches.

Q. And are the records made by that automatic *guage* as they are made each day during that period?

A. Yes, sir.

Q. And where the *guage* goes beyond the top of the chart, what does that indicate as to pressure?

A. It indicates a higher pressure than that registers on the left of the top line.

Q. It is higher than seven inches?

A. Yes, sir.

292 Mr. STEWART: The defendant offers in evidence Exhibit 144. No objection.

Witness excused.

EDWARD W. BEMIS, recalled on behalf of the city.

Examined by Mr. STEWART on behalf of the defendant.

Redirect examination:

Q. You have looked at Exhibit 144, the automatic guage register of pressure; please state what does that indicate?

A. It indicates that almost every day almost four to six in the afternoon the pressure exceeds seven inches.

Q. And you have already testified as to the effect of that pressure upon the consumption of gas?

A. Yes sir.

Q. And also what causes it?

A. Yes sir; it makes the gas blow and increases the leakage. It may be a necessity in small mains, although the mains being so small, it may not be necessary.

Q. Did you state on your cross examination something about relieving the pressure on mains by a certain class of mains?

A. I said there was a tendency of late among gas companies to put in reinforcing mains of high pressure taking gas at ten points' pressure from the works and tapping into the supply mains in various places with an automatic governor, that will reduce the pressure to what they want in the mains. With mains being small, they are less expensive to lay them is all than the large mains.

Q. Did you, in your testimony, on cross examination on depreciation mean to be understood as saying that \$8,000 or \$9,000 would be a proper depreciation to be allowed on this Lincoln plant?

293 *a proper depreciation to be allowed on this Lincoln plant?*

A. I meant to say \$7000; that is what I worked out as my figures this morning.

Q. In figuring the matter of depreciation did you allow for scrap?

A. No sir, and that makes my estimate all the more conservative, because there would be some scrap at the end of the live of the plant.

Q. Now, if a company, instead of setting aside a depreciation fund such as you have indicated in the way of a sinking fund, should pay that out in the way of dividends or interest on watered stock, that is inflated *capit* above the value of the plant, would the company in your opinion still be allowed or be entitled to credit for depreciation on the full value of the plant?

Mr. ROSE: The plaintiff objects as no hypothesis that is based upon or reflects the evidence or any feature of the evidence, and as introducing a hypothesis which no one has claimed to act upon in this law suit and varying from the position taken by the proofs of both the plaintiff and the defendant, and because the witness is not qualified to answer.

A. So far as the earnings that should properly go to depreciation have been paid out in either dividends or interest, to that extent the company is not entitled to collect it over again from the consumer neither is the company entitled to claim from the consumer

money to pay for plant depreciation, but only for current and future depreciation.

Q. From these reports of the company that you have investigated, was the repair account of 1907 normal?

A. The repair account of this company for 1907 was about $\frac{1}{2}$ of a cent a thousand, per thousand feet, — than the average of the previous four or 5 years, so I let it stand, but it should be referred to as higher and indicates therefore that the repair account is not likely to increase in the future. Five to six cents, being a normal account in other companies.

Q. Now, in your depreciation what do you figure will be taken care of of the operating expenses in the way of replacement or repairs or renewals?

A. I calculated that all renewals of the retorts or settings and all tools, renewals and keeping up the office supplies and furniture and teams, repairs and everything that is not absolutely displaced upon meters and services and mains and machinery and buildings, anything in the line of maintenance.

Q. All of those items that are necessary to keep the plant up in good shape, and physical condition you figured to be paid out of operating expenses?

A. Yes, it is included in the six cents repair item of this company: but where the whole unit is renewed outside of the failing of the retorts, and where anything like an entire setting or where you get a new machine to take the place of an old one, or of a new length of pipe to take the place of an old one, or a new meter to take the place of an old one, then it ought to be charged to the renewal account.

Q. That is the fund you would set aside for depreciation would be to rebuild those units?

A. But when a larger main, an eight-inch, takes the place of a 4 inch, one should charge off to depreciation at that time to this fund, only the cost of the four inch you took out, and charge the new 8 inch to construction.

(By Mr. ROSE:)

Q. That is the way this company does, is not it?

A. I think so; it should, at least, but I don't know. I think I saw some testimony about its doing so lately.

Q. You were asked something in your cross examination in regard to electrolysis here as to its effect on the mains, has there been anything to indicate any serious results from that?

Mr. ROSE: The plaintiff objects to the question for the reason that the witness is not competent to answer, incompetent, immaterial and irrelevant, and he is not qualified to pass upon the merits of the testimony that is already before the court.

A. I would say from the testimony which I heard on the water mains indicating that in the last three or four years there has been a very little electrolysis on the water mains except near the power house there would be no more damage to the gas mains.

Q. Which is the more likely to be injured by electrolysis, gas mains or water mains, and would there be any difference?

A. There is very little difference, if any. The water mains are likely to catch it a little the worst.

Q. Why?

A. Because electrolysis finds water a good conductor, and if two mains of equal size were side by side there would be a little more electrolysis going thru the water pipe and as it jumped thru the joints or when it left the pipe, it would pit it whether water or gas. If there was a little more electricity in the water mains the water mains would get it a little the worst.

Q. How do the sales of gas per mile of mains in Lincoln, compare with the sales of the Massachusetts companies whose leakage is so much less?

A. The 8 Massachusetts companies had an average rate of sales per mile of mains last year of 2690000 feet per mile, and the Lincoln company about 2900000 feet, or about ten per cent. more. There were 5 of the 8 Massachusetts companies that were included in that study of unaccounted for gas that had a lower sales per mile of mains than Lincoln, yet they had an average of leakage of 296 only 6 per cent. or 151,000 feet per mile of mains.

Q. Why do you use the business year of 1907 in making your computation?

A. Because it was the latest year, and because the year 1905 I had understood altho it would have been more favorable to use as far as the city was concerned for a considerable lower operating cost, was a year in which an inferior quality of coal,—I was informed some way, or I read it in the testimony,—had been used, and that they had to use a better coal later. But that it might not be a fair year, so far as the cost of coal was concerned.

Q. Did you hear Mr. Honeywell's testimony to the effect that there was no economy in the use of that cheap coal?

A. I read it, or knew that he had said so, but I don't know as I heard him say it.

Q. Now, the cost of coal, the average cost of coal for the year 1905 was what?

A. The average cost of coal per thousand feet of coal gas made in 1905 was \$58.49c. and in 1907 it was 69.31c.

Q. Have you got the cost per ton?

A. Yes sir; it was \$5.09 in 1905, \$5.68 in 1906, and \$5.95 in 1907, as they charged it. I understand, however that that included considerable labor of handling. I understand the actual cost f. o. b. cars was about 50c. less in 1907.

Q. And in 1906?

A. Well, in 1907, 50c. less than I just gave. Just how that 50c. is accounted for, I have not been able to determine, except ten cents for unloading and perhaps twelve; I think I saw in their books for taking it into the retort house, but that is only half of the difference, the rest I have not had an opportunity yet to study—where the rest of that cost of handling went.

297 Q. Now, is it not a fact you may have mentioned it, that the natural growth of the city should be taken into consideration as tending to increase the consumption?

A. Yes sir.

Q. As well as the reduction in price and attempting to secure new business?

A. Yes sir; it should.

Q. And that would cut quite a considerable figure?

A. It certainly would. I omitted tar. I was just going to add, this year by not making any allowance for the four gallons of tar that was allowed to run to waste last year; they saved about eight gallons that even at two cents a gallon, which they said it was worth for steam purposes would amount to eight cents a ton of coal carbonized, it would amount to at least $\frac{1}{4}$ of a cent for total water and coal gas sold, and would bring my 24.69c. up to 25c. profit on a dollar price; and giving the company its claims on inventory values and 50 years for the life of the mains, it would make 23c. instead of 22.69c. making those figures respectively 25c. and 23 cents.

Recross-examination.

Examination by Mr. Rose on behalf of the plaintiff:

Q. Then there are some advantages to the consumer from combining the management of the electric and gas departments, and getting consumption for the tar?

A. Yes sir; I should say so.

Q. And there are advantages in dividing the cost of administration between the two departments?

A. Yes sir; on the other hand, there is likely to be less competition in rates, and to that extent the consumer would not be so much benefited.

298 Q. But if municipal regulation took the place of it, it it would tend to economize the cost?

A. Yes sir.

Q. Now is distilled water a conductor of electricity, pure water?

A. Yes sir.

Q. Are you sure about that?

A. Yes sir.

Q. Is it not true that distilled water, in fact, is a non-conductor?

A. When you say pure distilled water, I don't know just what you mean. The ordinary drinking water such as flows thru the water mains is a good conductor of electricity, and I am not informed just what would result from your claim about pure distilled water; for example, the water that most cities have for drinking, ordinary pure water is an excellent conductor of electricity?

Q. Does not pure water have its impurities in it?

A. Not impurities that a bacteriologists would consider bad for drinking or for cleanliness. It is not absolutely free from all bacteria or all chemical constituents.

Q. And solids in solution?

A. No sir. But those are not deleterious to health necessarily.

Q. Now, I was not speaking about that question. I was inquiring

whether pure water free from anything in solution was a conductor of electricity.

A. Now I never had occasion to look into that at all, but I did not suppose there was any difference. Salt water is a good conductor and ordinary fresh water is but I never looked up this question. I don't believe there is any difference.

Q. It is only water that contains impurities and solids in solution, solid matter in solution, that is a conductor at all of electricity.

A. Well, I am not sure but a water main would conduct it
299 thru the iron just the same, whether the water inside would or not.

Q. Well, the water would not be as free a conductor of electricity as the iron?

A. I don't believe that it would, but I think it would be fully as much so as the gas.

Q. Now you don't mean to say that 12 gallons of tar per ton of coal is the average production, do you?

A. Yes sir.

Q. Is not that the maximum that is reached in any plant, and does not run from that down to eight or nine gallons according to the coal that is used?

A. No sir; 12 gallons is considered a normal output for a company that pays attention to it and tries to save it.

Q. What kind of coal?

A. Youghougheny.

Q. What can you get from the Kansas Coal?

A. I don't know.

Q. There is no market for tar at any price that would really pay for transporting it to the market?

A. I think the market is most likely in a city for local purposes and for steam as is used here. Of course in some eastern cities they are able to sell it. They sell it in New York for example; but I don't know as Lincoln would find it profitable to send it off.

Q. And unless they had a sale for it it would not pay to save and be at the expense of saving it?

A. Well I think it is worth, as the company says, two cents a gallon for fuel.

Q. It is worth that to sell it to the other department and
300 get credit to the gas department for it?

A. That is what Mr. Honeywell testified, I think.

Q. And that saving is really made because the two plants are combined?

A. At times in the past they have charged themselves, until recently, from three to four cents for it.

Witness Excused.

301 Filed Jul- 6, 1908. A. D. Geo. H. Thummel, Clerk, by
J. H. McClay, Deputy.

H. F. PETERS, produced and duly sworn as a witness on behalf of the defendant, testified as follows;

Direct examination.

By Mr. STEWART on the part of the defendant.

Q. Where do you reside?

A. 2803 Holdrege Street, Lincoln, Nebr.

Q. How long have you lived in this city?

A. 19 years in August.

Q. What is your occupation?

A. Real estate business.

Q. How long have you been engaged in that business here in this city?

A. 16 years.

Q. Are you acquainted with the values of real estate in the vicinity of the plant of the Lincoln Gas & Electric Light Company?

A. Somewhat.

Q. You know where that is located do you?

A. Yes sir.

Q. Have you had occasion to familiarize yourself somewhat with the values of real estate in that vicinity?

A. Yes sir; I have property listed for sale there.

Q. What would you say was the reasonable value of the block of ground per lot whereon this electric light and gas plant is situated?

A. Just the vacant ground?

Q. Yes vacant ground, without buildings?

A. About three hundred dollars a lot.

Cross-examination.

By Mr. ROSE on behalf of the plaintiff.

Q. Are there any trackage facilities there?

A. I don't think there is within a block of the ground that I have for sale.

302 (By Mr. STEWART:)

Q. No, he is speaking about the plant of the Lincoln Gas & Electric Light Company?

A. Yes, there is trackage there.

Q. Does that affect the value of it, being contiguous to the railway?

A. I don't think so; where a man starts an institution of any kind if he needs trackages, he generally gets it I think.

Q. Well, do lots that have trackage facilities sell higher there in that community than those that do not have trackage facilities in the actual market?

A. I think the list price would run about the same that I have—

Q. Answer the question?

A. Well, I could not answer that without looking up the price list, the prices that I have listed.

Q. Have properties been any higher than that during the sixteen years that you have been in the business here?

A. I guess in the boom of 1888 they were somewhat higher than they are now.

Q. How many lots are there in that block?

A. Well, I think there are twelve.

Q. Do you know what lots in that vicinity and between the location of this gas company's plant and the passenger station, have sold for, there lately, where they have trackage facilities?

A. No sir.

Q. Have they sold as high as a thousand dollars a lot?

A. I could not say.

Q. You still persist that the large trackage facilities in that locality don't affect the price at all?

A. I don't think they would.

Redirect examination.

303 Examination by Mr. STEWART on behalf of the defendant:

Q. That is, your testimony, as I understand it, is that if a party locates a manufacturing plant or something that consumes large quantities of coal or other material in that section of the city, they can secure trackage facilities without expense?

A. Yes sir.

Q. That is the railroads will build to them without charging anything?

A. Yes sir.

Q. And that is the reason why you say it does not add to the value?

A. Yes sir.

Recross-examination.

By Mr. ROSE on behalf of the plaintiff:

Q. Could the Gooch Milling Company get trackage?

A. I could not say anything about that, but I remember two years ago, when I was interested in a mill that was built at Fremont we first talked of taking the old mill that was built on 27th street, and the Burlington Road offered to run a switch track over there to us without any expense to us.

Q. They would not do it for Gooch would they?

A. I could not say as to that.

Q. For a \$40,000 new mill?

A. I could not say anything about that?

Q. And the old Conn Mill, do you refer to that.

A. Yes sir.

Q. That is right in among the tracks?

A. It is on the Northwestern, but not on the Burlington.

Q. How near is it to the Burlington?

A. About 4 blocks.

Q. Is that the nearest the Burlington runs to it?

A. Yes sir, I think it would be about 4 blocks.

Q. Does it reach within a block of it?

A. No sir.

304 Q. But it has trackage facilities on other roads?

A. On the Fremont and Elkhorn, yes sir.

Q. Well, it stands in a "Y" between two railroads does it not?

A. It is at least four blocks from the Burlington.

Q. It is on the Rock Island tracks there, is it not?

A. No sir.

Q. Is not it on the Missouri Pacific?

A. No sir.

Q. What other tracks are there that go by either side of it there?

A. There is nothing but the Elkhorn up to Fremont.

Q. Now, how many tracks of the Northwestern go by it?

A. Well, the Elkhorn has just a stub track that runs right in along by the side of the mill.

Q. Does not the Rock Island go right by it?

A. No sir.

Q. How near does the Rock Island go to it?

A. The Rock Island is still this side of the Burlington.

Q. This year did not the Burlington require a payment of \$4,000 as a condition for going into that same mill for Mr. Gooch?

A. I could not say anything as to that.

Q. You have not posted yourself as to whether or not they would go in there free?

A. No sir, we were figuring on a 500-barrel mill, and that is what we built at Fremont, and we expected to make that out of this one.

Q. What officer of the Burlington offered to go in there free of cost?

A. I could not say; it was the man who had charge of it, that has charge of such things.

Q. Who told you that?

A. Mr. Royston that was interested in it.

Q. You have nothing but his statement for that?

305 A. No sir; I went with him but it was the man that looks after the leasing of ground; we also went over there on North 14th street and looked at some ground over there, and they spoke about putting in a switch if we wanted it.

Witness excused.

306 Filed Jul- 6, 1908. Geo. H. Thummel, Clerk, by J. H. McClay, Deputy. A. D.

A. S. TIBBETS, being produced as a witness and duly sworn on behalf of the defendant, testified as follows:

Examination by Mr. STEWART on behalf of the defendant:

Q. How long have you resided in the City of Lincoln?

A. Something over 27 years.

Q. And what has been your occupation during that time?

A. The law business.

Q. Have you been engaged in any other business and are you

now?

A. No sir.

Q. You have interests in other businesses?

A. O yes, I have interests in other businesses. Yes, I am Director in several corporations here, three or four.

Q. Are you a Director in the City National Bank of Lincoln?

A. Yes, sir.

Q. And are you connected with other business institutions?

A. Yes, sir, some whole-sale institutions I am a Director in.

Q. Have you been acquainted with the current rates for money for the last few years in this city?

A. Fairly well, I have.

Q. State what the prevailing rates were?

Mr. ROSE: The plaintiff objects as immaterial, incompetent and no foundation laid.

A. For temporary loans they run from 4 to 8 per cent; they vary a good deal.

Q. According to the size?

A. The size of the loan and the responsibility of the party. Large institutions generally borrow at about from 5 to 6 per cent, or have in the last few years.

Q. What has been the current rate on bonds, municipal bonds and other classes of bonds?

307 Mr. ROSE: The plaintiff objects as immaterial and no foundation laid and the witness not shown himself competent to testify.

A. Four and a half to 5%—I would say from 4 to 5 per cent.

Q. Are you acquainted with the value of real estate in the vicinity where the gas plant of the Lincoln Gas & Electric Light Co. is located?

A. Oh, I have an opinion as to the value there, and have known of property being sold in that vicinity. I have sold property down on the bottoms there, that is, in the neighborhood of this property. I sold some amount.

Q. And from that then, from your general knowledge, could you say what a reasonable value of property was there?

A. I believe I have a pretty good opinion as to that.

Q. What would you say as to the value of this block of 12 lots of the Lincoln Gas & Electric Light Company at the present time?

Mr. ROSE: The plaintiff objects for the reason that the witness is not qualified to answer, no foundation laid.

A. I would say about \$250 a lot, possibly less than that; at about \$250 though, I would place it.

Q. Are you acquainted with the cost of organizing corporations as an attorney or otherwise?

A. Why I think so, in Lincoln?

Q. Yes?

A. Yes sir.

Q. I would ask you to state what in your opinion would be the reasonable cost of examining the titles to real estate, the preparation

of the certificates of incorporation, mortgage bonds, and matters incidental to the organization of a company such as the Lincoln Gas & Electric Light Company would be.

308 Mr. ROSE: The plaintiff objects for the reason that the witness is not qualified to answer, incompetent, no foundation laid.

A. Well, it would depend a little upon the amount of capital that was put into the business. As to my knowledge of the plant, I would say that the local fees of the organization of such a matter would be in the neighborhood of \$500.

Q. Now in this case they have also charged here for attorney's fees for the first year, \$5,000 in the evidence of a witness who has testified before that is in addition to the organization charge; what would you say as to what would be a reasonable fee for such services for the first year?

Mr. ROSE: The plaintiff objects because the witness is not qualified to answer, incompetent, no foundation laid.

A. Well, there might not be any services at all except advice. If a person was engaging for the corporation and it was new and had not got into any difficulty except what might be avoided in the organization, I would say that \$500 would be ample. Anyhow, I believe that a corporation of that kind where they have no litigation, damage suits, could engage a good attorney for that amount.

Q. As good as there is at the bar of this city?

Mr. ROSE: The plaintiff objects as incompetent, immaterial and irrelevant, and the witness is not qualified to answer and no foundation laid.

A. I would say almost any of the attorneys here, any of them would undertake it for that, unless they had some reasons for not doing it.

Q. Mr. Malone, another witness, gave as a cost of the organization of the Company of \$2,500 for engraving 300 bonds; do you know anything about what would be a reasonable cost of that work.

309 A. I would not want to be considered an expert on that at all.

Q. Have you ever had any of that kind of work done?

A. I have had certificates of stock engraved and, I presume bonds. I do not know as I ever had them to pay for, or knew what they cost, but I know that the bonds in the institutions that I have been connected with that have had bonds——

Q. Do you know what they would cost?

A. I have an idea what it would cost, that is, what has been paid for those things.

Q. About how much?

Mr. ROSE: Plaintiff objects for the reason that the witness is not qualified to answer he not being engaged in the business of engraving or lithographing and because the question itself does not embody the extent or character of the lithographing that is required in these particular bonds, and the witness is not shown to have known their

conditions or the number of coupons or the form on which they were stereotyped.

A. Well, from \$100 to \$150; it, possibly, might run as high as \$200. It depends upon the quality.

Q. And for stock certificates?

Mr. ROSE: The plaintiff objects as incompetent, immaterial, irrelevant, witness is not shown to be qualified to answer.

A. It would be about the same; it would be a little less for stock certificates.

Q. Now, there are three items here of trustee's fees certifying bonds, trustee's annual fee and the register and transfer agent; do you know what services are required to be performed by a trustee in certifying to bonds and for which he is supposed to receive an annual fee for acting as register and transfer agent, if so, state?

310 A. Well, he certifies to the bonds and makes any transfers that are necessary, if the transfer of the bonds are to be made upon the books of the Company; and the work incidental to a thing of that kind is very small.

Q. Merely nominal?

A. Merely nominal.

Q. And is there any especial responsibility involved?

Mr. ROSE: The plaintiff objects because the particular conditions and duties of the trustee in this case are matters of contract and not expert knowledge, and incompetent.

A. Well, it is only a reliability, that is all. The trustee could not be held for anything else except for some misconduct of his own which might arise.

Q. What would you say would be a reasonable sum to pay a person for acting as such a trustee per annum, say?

Mr. ROSE: The plaintiff objects because the witness is not qualified to answer, no foundation laid, and because it is not a question of scientific knowledge, and incompetent.

A. Why, in the first instance, three or four hundred dollars, I think, would be ample, and then the work annually after that depends upon the number of transfers, and I could not see that there would be anything that would add a great deal to it; there ought not to be a great deal; a couple of hundred dollars the first year would be sufficient, it seems to me—that is, supposing the transfers to be made upon the books of the Company and the bonds not being transferred by delivery.

311 Cross-examination.

Examined by Mr. ROSE on behalf of the plaintiff:

Q. Did you ever put out a bond issue of upwards of a million dollars with a large industrial organization?

A. No sir; there are very few that have done so in this term.

Q. Have there been enough of those bonds issued in this town to make a market price for them?

A. A market price for the bonds?

Q. No, a market price for the legal work?

Mr. STEWART: The defendant objects for the reason that the question is indefinite in that it does not state whether the bonds were of the par value of that amount or whether it refers to fictitious bonds.

A. Yes sir, I do not know as there are—there may not have been any; I don't suppose that there ever was one organization in this town with an issue of bonds of a million dollars where the work was done here. But we all know what such work is worth; what it would be worth here.

Q. Where has the work been done in that class of organizations?

A. It has generally been done in the east.

Q. By New York attorneys?

A. Oh, not necessarily.

Q. Generally by New York attorneys?

A. Well, generally I suppose. It was not done here. There are only these large municipal corporations, public service corporations that have anything of that kind.

Q. One of the street railways had its organization work done by Mr. John H. Ames, here, did it not?

A. Yes sir, but that was some time ago, if you refer to that one.

Q. He is a lawyer here in fair standing and was at that time?

A. Yes sir.

Q. He charged a few for drawing articles of incorporation
312 of \$2500 and collected it?

A. If he did he charged five times too much; it is a graft.

Q. Did you know what the cost of that work done was in his case?

A. I do not know, no sir.

Q. That is a matter of general publicity that he got \$2500 for the articles of incorporation not involving any bond issue?

A. No sir, I do not think that it is a matter of general publicity.

Q. In the work of the organization of the Home Street Railway?

A. No sir, I don't think that is a matter of general publicity.

Q. Did you ever examine one of the trust deeds pledging properties of as varied a nature as the properties of the Lincoln Gas & Electric Light Company which saves to the company its right to make replacement and protects in minute details both the company and the bondholders and also the trustee?

A. Yes sir.

Q. Are the instruments in common and general use for that purpose voluminous?

A. They are more common than ordinary deeds.

Q. Are they more voluminous?

A. Yes sir,—I mean ordinary deeds are more common, and these are more voluminous, I mean.

Q. In protecting all the rights of all the parties in common and general practice the instrument itself makes quite a large volume, a printed volume does it not?

A. Well, it makes several pages of legal cap.

Q. Does it not make several hundred printed pages?

A. Oh, not necessarily.

Q. I said ordinarily?

A. Ordinarily I say, no.

313 Q. Take for instance the trustee deed that secures the issue of a million and a half of bonds in the Lincoln Gas & Electric Light Company?

A. I would say ordinarily no, it ought not to.

Q. Do you know what the requirements of the trustee are, a trustee of good credit in Chicago and New York, in those respects?

A. Why, I don't know as I know in detail; I know in general, that is I know what the requirements ought to be had of him.

Q. Well do you know — demands a trustee will make in respect to the conditions of such a mortgage before he will accept the trust, ordinarily?

A. Ordinarily he demands that it shall be all right and in proper form, if that is what you mean?

Q. I asked you if you know what his particular requirements would be, in general?

A. Oh, no, I do not know. It would depend upon the trustee, I presume.

Q. Any of the trust companies who are engaged in this business, of good credit either in New York or Chicago, would also require that the conditions of the bond be examined by its own attorneys?

A. Yes sir.

Q. And approved?

A. Yes sir.

Q. And would require the company to pay the costs of that examination?

A. Yes sir.

Q. And approve it?

A. Yes sir; I think that is probably true; but if it was done here, there would be no necessity for that.

Q. Well, bonds of that amount are not floated here on industrial enterprises, are they or they have not been up to this time?

A. No sir, I think it is probably true that in order to have them listed on the market it would be necessary to have a trustee that had a reputation.

314 Q. Did you ever see one of the lithographed bonds with the coupons annexed of the Lincoln Gas & Electric Light Company?

A. No sir; but I have seen those of similar companies—I might have seen some of them, but I don't recall it if I did.

Q. Do you know how many words are in one of those?

A. I know nothing about it.

Q. Do you know how many coupons are attached?

A. There would be either one or two each year that the bonds would run.

Q. And they run forty years, that would make at least forty coupons?

A. Yes sir.

Q. How many full sheets would it require for lithographing?

A. I don't know. I could not tell much about your lithographing.

Q. The forms that are now used for bonds that run for the term of forty years and secured by a voluminous trust deed and containing recitals of the trust in it would require how many plates?

A. I could not tell you. I do not know.

Q. Well, would the cost of lithographing be effected by the number of plates that had to be made?

A. I suppose it would.

Q. How could you tell the cost of lithographing without knowing the number of plates?

A. I could not.

Q. You could not tell the cost of the plates without knowing the number of words that were upon it, could you?

A. I could not tell.

Q. And you don't pretend to give what would be the fair cost of lithographing, do you?

A. Oh no—well, I do, in a general way, in the matter of corporations that I have been connected with here that had lithographing done.

Q. Not of this character?

A. Well, I don't know just what the character of this is.

315 I would say that I don't think my evidence in regard to lithographing amount- to such a great deal.

Q. You would not want to guarantee your prices on that, would you?

A. No sir.

Q. Let us assume as the basis of attorney's fees here, that a company would spend—that a company would be organized and expend in actual construction of the plant from \$800,000 to \$950,000, would make its contracts with the city, with its contractor, arrange for opening the streets, contract for hiring men, and hiring manufacturers for pumps, gas holders, machinery without building contractors for the building of buildings would purchase and acquire tools, equipments and machinery to construct and equip a plant of the actual cost value that I have mentioned, in Lincoln under the direction also of competent superintendents and engineers; that it was organized with a view of entering upon and carrying on that work to completion as nearly as could be in the course of year—under such circumstances would it not prudently or conveniently require extensive services of an attorney?

A. Not very extensive, Mr. Rose—you mean after the organization, after the preliminaries?

Q. No, I mean in carrying on that work and drafting the contracts, the enforcements of contracts, advice as to getting the streets opened, going before the city council and getting permits and things of that sort, liable to be involved in numerous suits, liable to have claims for breach of contracts and whatever would be incidental to the expenditure of that money in construction work in the city of Lincoln inside of a year?

A. Oh, I don't think there would be much call for an attorney.

Q. Would there be any liability to their being called upon for extensive advice, would it be within the range of possibilities?

A. It would be possible, but I don't think it would be probable.

Q. Would it be probable that men would be injured and
316 killed in extensive operations of that kind?

A. Oh, that would make separate fees, and a separate suit.

Q. Would it be likely that those things would occur?

A. They might occur, it would be, you might say likely.

Q. Is it not true that in administering and carrying on a construction enterprise of that magnitude, the executive manager should ordinarily and in prudent practice would, have the counsel of a competent attorney to guide him in the prosecution of his work, and the execution of his contracts, and to advise him as to the liabilities of the company as they should, from time to time arise?

A. He might do it, but still in practice they generally make their own contracts without seeing an attorney unless they have an attorney hired by the year to whom they can resort just as well as not.

Q. How many situations of that kind have ever been presented in this city from which that custom has grown up involving the expenditure of the volume of money I have suggested?

A. Very few.

Q. Has there been one in the history of the city?

A. There never has been in the history of the city where the amount of money that you mention has been expended.

Q. Is it not true that in the execution of a mere paying contract in this city the contractor has ordinarily expended for a single contract of much smaller magnitude than that which I have mentioned, large sums during the year on construction work solely for attorney and counsel fees?

A. Oh, I think not; I never knew of a case of that kind.

Q. Don't you know that Hugh Murphy did and that Buckstaff did?

A. I know that Buckstaff claimed he paid \$5,000 to some parties but not for attorneys' fees.

317 Q. That was outside of the lawyers? To Whedon & Mason what did he pay?

A. I don't know. He might have paid that.

Q. What did Murphy pay, what did the Barber Asphalt people have to pay to Frank Hall and Pettis, and the Green River Asphalt Company?

A. Oh, I don't think they paid them a great deal.

Q. Has there ever been an enterprise involving the construction of public works in Lincoln carried through to your knowledge without the expenditure of a large sum for counsel fees?

A. Well, I would call \$500 a large sum, and I will say that it might under certain circumstances if a contingency arose where the company had to call upon attorneys to protect them in the matter of damage suits or anything of that kind, the fees might be more.

Q. There might be many times \$500 when you contemplate the magnitude of the work I have mentioned?

A. There might be, but that would only be a possibility.

318 Q. Does the Lincoln Gas & Electric Light Company have credit that will enable it to borrow to meet its notes, at the rate of six or seven per cent in this community?

A. I should say so, yes sir.

Q. Well if you can give them \$100,000 at seven per cent a year they will borrow it?

A. Well, it depends on how many bonds have been issued and prior liens.

Q. I asked you if they do have a credit?

A. Well, I think they do, they do not have a credit for that amount.

Q. Don't you know they have peddled their notes and endeavored to make sales here of an issue of \$100,000 on short time notes at seven per cent giving a trust pledge of its bonds at double the face value of the notes and have been unable to place them under those conditions at seven per cent?

A. I knew that notes had been offered. I do not know the amount but my recollection would not be seven per cent.

Q. And wasn't the rate seven per cent and didn't the company, in addition to that, offer a bonus or a commission of one per cent to have them placed making the cost to the company eight per cent?

A. I do not recall any bonus. There was a time here when no company could borrow \$100,000.

Q. Well, were these not notes offered before the banker's panic of last fall and they failed to sell?

A. If they had pledged their bonds I do not see why they could not get the money before October 28, 1907.

Q. Well, if they offered them last April and from then on up to October 28th that would be a surprise to you?

319 A. I know they offered some notes last summer, that is my recollection.

Q. And don't you know they could not place them with the banks in this town or with private individuals?

A. No sir, I did not know that. I think some were placed.

Q. Now speaking about the rates for enterprises of this sort do you know upon what terms the American Light & Traction Company sold its notes a year ago?

A. Oh, no sir. The American Light & Traction Company may not have been a very good financial institution. I know what other notes sold for a year ago. I know what Armour & Company did and I know what Cudahay did.

Q. Armour and Swift go away into the millions away beyond our class?

A. Well, you take it down lower I can tell you what Raymond Brother Clarke Company borrowed money at, I can tell you what Miller & Paine borrowed money at.

Q. You might tell me what I could get it at, but a private person with property collaterals is not what we are asking about. I am

asking about industrial organizations of this character, which by their constitution or from their class of business are obliged to deal with municipalities. Now the American Light & Traction Company is one of the most extensive gas operators in the United States whose president is Emerson McMillin, a banker of New York, and reputed to be in as good financial standing as any other company in the business—

A. The same one that had this at one time?

Q. Never had this except that Mr. McMillin's chief
320 engineer is the president of this company and they are managing officers only, but they never owned it. Now in case Mr. McMillin, with his great financial strength, was obliged to put out his short time notes a year ago before the banker's panic at the rate of seven per cent and pay a commission for placing them of one per cent, would you say that institutions of this character could borrow money at less than seven or eight per cent?

A. I would say it would not have a thing to do with it, it may not have been worth it, it may have been on the verge of bankruptcy or may have lost the confidence of the commercial world.

Q. I am assuming the contrary, that he actually floated this paper in the ordinary channels and he was in good credit?

A. If he had been in good credit he could have floated them at less than that. There was in the neighborhood of \$40,000,000 of packing paper held in the State of Nebraska at the rate of five per cent last summer.

(By Mr. STEWART:)

Q. Packing house paper?

A. Yes sir.

Q. And it raised to six per cent, didn't it?

A. It did for a little while but it is back now. You can place packing house paper at five per cent today.

Q. That is an entirely different enterprise from a gas plant isn't it?

A. Well, it is a legitimate enterprise and they have good credit.

Q. Do you know what effects the credit of the gas company?

A. Oh, I know that in general— I know that there has been more or less agitation of the matter and there has been
321 more or less distrust of these gas companies that they have been over capitalized, and that has had a bad effect on their credits.

Q. Would a company like this, who has its right to occupy the streets question- in a suit by the city, could it go into the market and borrow money today at any price?

A. Well, it is possible it might if it is not over capitalized.

Q. No, cutting out the capitalization and assuming it had no debts at all?

A. I do not see why it should not borrow money then, I know the Lincoln Telephone Company borrows money, our bank loans them money and loans them at a low rate of interest, and loans them on their note at six per cent.

Q. Do they have any bonds?

A. Yes sir, they have \$550,000 of bonds sold.

Q. You loan them at a lower rate than they get on their bonds do you, they give a stock bonus and their bonds at six per cent don't they?

A. Their bonds go at six per cent.

Q. With a stock bonus added equal to the face of the bonds?

A. Oh, that was when they first started, there is no stock bonus now.

Q. And they sold at 90 cents on the dollar then did they not?

A. When they started they sold at 90 cents on the dollar, yes sir.

Q. They sold at 90 cents on the dollar a six per cent bond and accompanying that bond was a certificate of stock for the face value of the bond?

A. Yes sir, the stock represented no money paid in at all in any way, it was simply water, the stock is.

Q. That is the way the bonds were floated isn't it?

A. Yes sir.

Q. So that it represented a par value of stock for the face of the bonds and two securities, a bond at \$100 and the face value of stock at \$100 were sold for \$90?

322 A. Oh, the stock didn't have anything back of it at all.

Q. I just asked you about the conditions on which they were sold, have I stated it right?

A. They were sold in that way that is \$90 would buy \$100 worth of bonds and \$100 worth of stock when they first started, but it was an experiment at that time, nobody knew what it was.

Q. That was when they projected it and we would get some indication of the cost of getting money in this community for gas enterprises, would it not?

A. Yes sir.

Q. Now these bonds are still outstanding?

A. Yes sir.

Q. They have gone into the market?

A. Yes sir.

Q. And the company cannot redeem them at less than par and accrued interest?

A. No sir, and they are worth par now.

Q. Well, they do not find a very ready sale at par yet?

A. You cannot buy them for less than par.

Q. Do you know anybody that bids par on them?

A. I do not know of a single bond that is for sale for less than par.

Q. Do you know anybody that wants to buy the bonds at less than par now that cannot get it?

A. I do not know as there is anybody that wants to buy any bonds now. I do not know as there is anybody that wants to buy a government bond. I do not recall now anybody that wants to buy a government bond.

Q. And you would loan to the telephone company on its watered stock basis and not to the gas company on its basis?

A. Well the telephone company is on a good—we count it
323 on a good financial basis and the gas company, if I was going
to say I would say, the gas company is bonded too heavy to
have a good credit.

Q. Well, you don't know anything about the values of this company's property, personally do you?

A. Yes sir.

Q. You do?

A. Yes sir.

Q. Are you an engineer and have you gone over it and estimated?

A. No sir, but I have heard the representatives of the company state on the witness stand what it was worth.

Q. Have you heard the engineer give or exhibit here the values of the property in its details, the number of miles of mains and everything of that sort?

A. No sir, but I have heard the manager of the company do that.

Q. Suppose the evidence shows that the bonds do not cover the full value of the physical properties of the company in all its departments?

A. Well, I wouldn't believe it.

Q. Well, I said suppose it was shown that that would be true what would you say as to its being upon a fair financial basis and entitled to credit?

A. I would say, if that was true, it would be on a good financial basis.

Q. Have you ever dealt in stocks of this kind or engaged in the gas business?

A. No sir. I have bought stocks of this kind and sold them myself in a small way.

Q. Years ago?

A. Oh, no, lately.

Q. In this company?

324 A. No sir. I never owned a dollar of gas company's stock in my life.

Q. Nor bonds?

A. Nor bonds. I have owned both in the Lincoln Telephone Company and have some stock in the Lincoln Telephone Company today.

Q. Well, you have some of that stock that you say represents nothing but water?

A. Yes sir.

Q. Do you know anything about the financing of the gas companies over the country, how they are financed?

A. I would not be considered as expert on that.

Q. You never have piloted through any scheme to finance an enterprise of this kind?

A. I never was a promoter.

Q. You never were a counsel for a promoter?

A. Well, I say I was never a promoter in other matters and not in this, that is. I have been counseled by promoters, yes sir, in coal matters and in coal mines and in insurance companies.

Q. And gold mines?

A. No sir, no gold mines.

(By Mr. STEWART:)

Q. And street railways?

A. I do not remember that I ever was counseled or ever assisted anyhow in promoting a gold mine.

Redirect examination.

Examined by Mr. STEWART on behalf of the defendant:

325 Q. This Lincoln Telephone Company, that has been referred to in your cross examination, that plant was put into the city here in competition with the Bell Company, wasn't it?

A. Yes sir.

Q. At the time when the Bell Company occupied the field?

A. Yes sir, we introduced an automatic service which was considered at the time an experiment.

Q. So it had to be exploited in the fact of strong competition and with an appliance that was something of an experiment?

A. Yes sir.

Q. Now it appears that the Lincoln Gas & Electric Light Company has something like \$1,168,000 of outstanding bonds and notes, would you think that with such an amount of encumbrance on its property that it would be entitled to any credit?

Mr. ROSE: The plaintiff objects because the witness is not qualified to answer.

A. Why only small current amounts is all, a small current indebtedness I would think it would be entitled to small credit, but not any large amount.

Q. Would you think it at all strange that any company that had a bond issued, secured by a mortgage or trust deed in excess of its value, would find it difficult to borrow additional money?

Mr. ROSE: The plaintiff objects for the reason that the witness is not qualified to answer, and the hypothesis assumed in the question is not based on the testimony given by any witness in this case.

A. Well, it would not be at all strange that they could not borrow.

326 Q. Your testimony is that any concern borrowing money here in Lincoln in the past few years in any considerable amount with good credit, could get money at from five to six per cent?

A. Yes sir, and I would say in regard to such a thing as the gas company, that if the gas company had any bonds at all, I believe it could borrow money in Lincoln at five per cent today if organized on a business basis and had money paid in to show for its investment, that it could borrow plenty of money right here in town for five per cent if it wanted to.

Q. You spoke about public utility corporations. Do you know what credit the Citizen's Street Railroad Company or Traction Company have commenced, or what interest they have given?

A. Their credit is good and they borrow at not to exceed six per cent.

Q. They pay not to exceed six per cent?

A. Yes sir, not to exceed six per cent and my recollection is that they borrowed money last summer at five per cent.

Recross-examination.

Examined by Mr. ROSE on behalf of the plaintiff:

Q. Do you know what the big commercial railways, the strongest organization of railways paid last year for money?

A. Oh, I do not know what you would call a strong organization if it is one of those that was heavily bonded——

Q. Take the New York Central?

A. Oh, the New York Central and a good many of the roads that issued notes paid pretty good rates of interest last summer, that was an unusual thing.

Q. As high as seven per cent?

327 A. They paid as high as seven per cent, some of them did and couldn't borrow money for that because they were bonded for more than they were worth.

Q. And you would regard those securities as of less value than those of the local telephone company here who built its plant on bonds and issued its stock in water?

A. I would say at the time that stocks were tumbling that they lost the confidence of the people and lost the confidence of investors, and those that were loaning money did not consider them safe and that was the reason of the high rates of interest last summer, but since the panic in October it has been more owing to the stringency in the money market than anything else.

Q. You may name some person that did not regard the securities of the New York Central last year as good credit, name one person that did not regard the New York Central paper as good as any?

A. Well, the New York Central paper, I never knew of but one person, but I would not say it was New York Central paper, and I cannot recall who that was, but one of my clients was speaking to me about investing some money or that he had money invested in railroad notes, just what railroad that was I do not recall now, that is the only instance I know of here. Those notes are not placed here to any extent.

Q. Didn't your client have confidence in it when he invested his money in it?

A. I do not know whether he did or not. I did not ask him.

Q. You have never testified as an expert financier before have you?

A. No more than just what I know, I know about some of these things.

328 Q. You do not claim to be an expert on financing enterprises of this character, do you?

A. So far as the legal part is concerned I think I know.

Q. On the financial?

A. Oh, I am not a financial man, no sir, I simply know what I know about the financial matters that are incident to my business and to the parts that I have had in business. I have had pretty

intimate relations with the banking business for some seven or eight years and been consulted on the financial part of it quite a good deal.

Q. You are not the financial manager of any bank?

A. Nothing more than I am on the board of directors and one of the consulting members of the board.

Q. But you are not the acting or directing manager of that bank?

A. No sir.

Q. And spend but little time with the affairs of the bank?

A. That is true.

Q. You do not even know what ordinarily and usually is the commission paid by what we call the financial underwriters to put into the market an issue of bonds of a company like the Lincoln Electric Light & Gas Company?

A. Yes sir, I know something about it.

329 Q. Is there a commission charged?

A. Why they take just whatever commission they can get.

Q. They do not take the job at all, unless they get a good commission, any of them, do they?

A. Why it depends on the institution, some of them can place their bonds at a fraction of one per cent, and others are willing to pay as high as five per cent.

Q. That is your best knowledge is it?

A. Why I say it is true.

Q. Will the biggest financial underwriters in New York, float the best railroad stocks in the country, on the main trans-continental lines, for a commission of less than five percent, a new issue?

A. I would say yes, but I would say that so far as taking the entire issue and placing it, and the charge for doing that, I am not acquainted with.

Q. There is not financial underwriter that does that on the best securities for less than five per cent, is there, or that does it in an ordinary case for less than ten per cent?

A. I would say yes, for less than that.

Q. Who does it for less than that?

A. I could not tell you, I have only given you my opinion on it.

Q. I am asking you if you know of anyone who would?

A. Well I have known of this, I have known of propositions from underwriters to place bonds at 2 and 3 per cent.

Q. Those were municipal bonds, were they not?

A. Oh, municipal bonds can be placed for less than that.

Q. Well were not the instances of 2 and 3 per cent you have mentioned, nevertheless municipal bonds?

330 A. No sir, I don't have in mind the municipal bonds?

Q. Was it a broker that offered to do that, or a man that offered to take the entire issue and assume the responsibility of placing them?

A. A broker, I will state I have known of no one assuming the responsibility of placing the entire issue, and I would say that was a poor way of doing any how.

Q. Well you would not know whether it was necessary to do that or not until you had tried it, would you?

A. No sir, I would not, and then it would depend entirely upon the corporation.

Q. But if you wanted to put an enterprise upon its feet thoroughly, and get the money, and know in advance so as to contract for the expenditures, it would be a prudent and safe thing to provide for the entire issue, would it not?

A. Why yes sir, but I cannot say that that was ever necessary with the gas company here, unless you go and organize a new one.

Q. Well we have been figuring these things on a replacement value here and starting a new company.

A. If a man has the money to put into business, and promote a gas company, why that ends it.

Q. Nobody here in this community has money enough?

A. (Not answered.)

Redirect examination.

Examined by Mr. STEWART on behalf of the defendant:

Q. Nobody in this town has money enough to promote an enterprise of that magnitude, ready money?

331 A. I believe if there was nothing of that kind in this town today, that we could promote one and get the money and organize it in ten days.

Q. Right here in Lincoln?

A. Right here in Lincoln.

Q. If it was honestly financed?

A. Yes sir.

Q. You spoke about having been told and heard a statement by the manager of this company as to its value, Mr. Rose did not follow that inquiry up; when was that?

Mr. ROSE: The plaintiff objects as immaterial, and as being a voluntary statement, and as not bearing upon any of the issues here.

A. It was when these tax cases were tried, I think it was in 1903 or 1904 somewhere along there.

Q. And what was the statement?

Mr. ROSE: The plaintiff objects as immaterial and hearsay, and as not proper redirect, and as not binding upon the company.

A. The statement was as to the cost of the replacement of the entire plant.

Q. And what was that?

Mr. ROSE: The plaintiff objects as not the best evidence and not binding upon the company and immaterial.

A. \$225,000 at that time.

Recross-examination.

Examined by Mr. ROSE on behalf of the plaintiff:

Q. And who was the manager of the company at that time?

332 A. Well sir, I cannot recall who it was, tho he made the statement. He was called by you, as attorney for the gas company, on the witness stand as the manager, and as the one qualified to make this statement.

Q. Now I never called the manager of the gas company?

A. Well it might not have been the manager, it was one of the——

Q. It was Bill Lawlor, was it not?

A. William Lawlor was one, but there were two of them, you had two witnesses, Lawlor was one, now I recall that, and I have forgotten who the other one was, I could not have recalled Lawlor if you had not mentioned it. But you called two witness- to fix the price of replacement, and it was set at \$225,000.

Witness excused.

333 H. S. WIGGINS, recalled on behalf of the defendant.

Examined by Mr. STEWART on behalf of the defendant:

Q. You stated yesterday in response to a question by Mr. Rose something in regard to the condition of the books of the gas company. I will ask you if in your examination of them, if you found any mutilation on them or erasures in them?

A. Why I noticed in one place, in one of the Journals, where there had been some leaves taken out?

Q. What Journal was that?

A. I do not recall now, I think it was Journal "D" or Journal "C."

Q. Did you note that fact at the beginning of the books?

A. I noted it at the margin of the book, yes sir.

Q. When was it, do you remember that date?

A. I don't recall exactly the date.

Q. You can tell by looking at the book?

A. Yes sir, I can tell by looking at the book.

Q. How have you looked up this matter of the cost of the large increase in the bench repairs in the year 1907, over what it was in 1906 and 1905 to ascertain what that was?

A. Yes sir.

Q. Have you ascertained how it was charged off as yet, have you a statement of that? If you have not, you will have to look that up?

A. The bench repairs,—the bench repairs during the year 1907, amounted to something like \$9000 and that is what is charged into the accounts called contingent bench repairs, the reason it is charged into that account instead of bench repairs, proper is so it can be spread over a term of years, supposed to represent the life of the repairs made.

334 Q. And that for the year 1907 was something like \$9,000 a year, as I remember it?

A. And in the year 1907 the amount charged out for bench repairs was \$4022.24, which was very largely in excess of the year-1905 and 1906.

Q. Well have you got a memoranda by which you can state the amount that was charged out each year of that \$9,000 expenditure?

A. Well it has not all been charged out as yet, a great portion of it is still standing in that contingent bench repair account.

Q. I will ask you to look that up and make a statement of that?

A. Probably the best way to make that statement would be to show the amount charged out each month during the series of years perhaps.

Q. How much was charged out per month during the year 1907?

A. Usually about \$361 a month, that is after the month of April—no including the month of March, say up to the end of the year, they usually charged out about \$361 a month.

Q. And that commenced with the time that the extensive improvements were made?

A. Yes sir.

Q. And that improvement then amounted to how much?

A. About \$9,000.

Q. So that that would indicate that they had started out to charge it out, in about how many months?

A. In about 25 months at that rate, it would be charged out in about 25 months.

Q. Your statement Exhibit "117" indicates that the cost of coal gas in 1905 was 40 cents omitting the fraction, and in 1906, 54 cents, and 1907 was 62 cents per thousand cubic feet. You have given the cost of the company of coal and oil. I will ask you if you *if you* have been able to find any reason why the cost of the manufacture of coal gas should increase at that rate during those years?

Mr. ROSE: The plaintiff objects for the reason that the witness is not qualified to answer, and not shown to have known the conditions that existed, and as immaterial.

A. I found no adequate reason for such a marked increase.

Q. Now I want to call your attention to the fact that your Exhibit "117" shows the cost of retort house labor to be, omitting the fraction of a cent, 5 cents per thousand cubic feet, and in 1906, 6 cents per thousand cubic feet, and in 1907, 8 cents per thousand cubic feet?

A. Yes sir.

Q. Have you been able to locate the cause of that marked increase in the retort house labor, some three cents per thousand cubic feet?

A. No sir, retort house labor, as I understand it and am informed, consists principally of the wages paid to stokers, I found the rate of pay to stokers had not materially increased from 1905 to 1906, and not at all increased from 1906 to 1907 so far as my observation of the pay roll goes. There was a little increase between 1905 and 1906.

Q. Now you said in response to Mr. Rose's question that you had not seen any evidence of any manipulation of the accounts, in the books of the complainant's company, have you been able to reconcile those discrepancies from any accounts that you could find in

them, in that largely increased cost of gas, where the elements entering into such costs are apparently the same in different years?

Mr. ROSE: The plaintiff objects to the question in so far as it contains an assumption that there is a discrepancy in the books, and the witness has not so shown, but on the contrary will state that it does not constitute a discrepancy. It is a variance in those items, but it is no discrepancy in the books.

A. No sir, I have not been able to find any reasonable explanation for such a remarkable increase.

Q. Have you been able from your examination of the books and records of the company, to examine and verify, and determine the integrity of the pay roll, and identify the parties receiving the pay?

A. No sir.

Cross-examination.

Examined by Mr. ROSE on behalf of the plaintiff:

Q. That was no fault of the company that you were not able to do that?

A. No, that was lack of time.

Q. Now it was not from any lack of facilities of the company?

A. No sir.

Q. And you were not asked to do that by Mr. Stewart were you?

A. No sir.

Q. Then your answer to that only implies that you did not go over that ground at all?

A. Oh, I did not go over that ground, no sir, to make an audit of the books for the period covered in my work would require months and I had only weeks.

Q. Now what time was it that the price of retort house labor was the highest, I mean the cost per thousand feet of retort house labor, that the retort house labor was higher?

A. Well it was higher in 1907 than it was in 1906, and it was higher in 1906 than it was in 1905.

Q. Now suppose there had been a strike intervening that had made the labor less efficient than required the employment of men not skilled, would that fact be shown on the account book?

A. No sir, Mr. Honeywell told me that recently that they had been able to get experienced stokers from plants, that had put in machinery for putting in the fuel, and that the men that were in that class of work were men that remained with them, right along month after month and often year after year,—in fact I found the same names running right through for a long period of time.

Q. Did he tell you anything about a strike they had there, where the men walked out on them?

A. No sir, I believe not—Oh, yes sir, I beg pardon, yes sir it was mentioned that at one time they had had a strike there and that some of the men had gone down from the office, and tried to shovel the coal into the retorts.

Q. And that one office man stayed there all night did he not?

A. He did not go into the particular about it.

Q. And they got men who were entirely unexperienced to assist them too?

A. How long that lasted I did not inquire.

Q. Now whatever would be the immediate cause of employing more labor to do that work, would not be in any event exhibited on the face of the account books would it?

A. No sir, but I suppose it would be regulated by the amount of gas made, that is that the proportion of increase in the
338 labor would be——

Q. I said suppose that the cost of the retort house labor had increased from any legitimate cause, by strike or by want of efficient laborers, the facts that caused the increased expenditure there would not be entered into the account books would it?

A. No sir.

Q. So to reconcile that and to find any efficient cause, you would have to resort in any event to information outside of the account books?

A. Outside of the general books yes sir.

Q. The additional cost of retort house labor if it was actually shown, would be one satisfactory cause in the increase, in the cost of coal gas would it not?

A. Well if it was shown to be a—if there was a reasonable explanation.

Q. If it was actually expended, in good faith, and had to be accounted for, the effect of that itself would be to raise the price of the coal gas, the cost of the coal gas in the holder wouldn't it?

A. Yes sir.

Q. And any other costs that might enter into that, you would not discover merely on the face of the books, without resorting to outside information would you?

A. No sir, not without col-attoral information, such as analyzing the pay rolls to see how many men were employed etc.

Q. So the mere fact that you did not find the explanation on the face of the books would be wholly unimportant?

A. Well I can hardly admit that, without an increased——

Q. No, wait, how would you expect to find it on the books or the accounts in the face of your previous testimony, that you could not in any event find those explanations for that cost entered on the books alone?

339 A. Well I made an analysis, this far, to go through the distribution of expenditure, and check off the items month by month, and I would notice at times a very considerable increase in cost.

Q. Now the books *is* now before you to which you referred a while ago, and the pages missing are those between pages 194 and 199?

A. Yes sir.

Q. Now let me ask you if the page 194 is not the journal entry closing the books of the former company?

A. I take it to be that entry.

Q. And it is in the handwriting apparently of an auditor and a *fidderent* handwriting from the handwriting of the bookkeeper who previously kept the books?

A. Yes sir.

Q. And what date is it closed?

A. Closed on November 30th 1901.

Q. Now the first entry following that is on page two hundred and one is it not?

A. Yes sir.

Q. Isn't that mark on opening in the handwriting of the same person?

A. Yes sir, dated December 19, 1901.

Q. Now I will ask you further if this book shows a continuous record of the company?

A. Well I could not tell that Mr. Rose. There is quite a lapse of time between the two dates.

Q. The entry on December 19, 1901, is the transfer entry opening the new book?

A. Yes sir, it is the opening entry.

Q. Have you examined to see why that entry was made on that date, whether the company in fact transferred as of date December 1, 1901, which would follow the other day, November 30, 1901?

340 A. Well they transferred it as of December 19th I believe. The opening entry of the new account is entered on December 19th.

Q. Are those references back to pages of any other books, in the Journal?

A. The books give reference to the ledger pages. The different items in these entries give reference to the ledger pages, on which the accounts are found.

Q. Where is the reference to the ledger page?

A. Right here, (indicating).

Q. This cash item is supposed to be at page one of the ledger?

A. Yes sir.

Q. You would not say whether it shows a continuous record or not?

A. No sir, I could not say.

Q. Have you checked over to see whether the opening entry is a correct transfer to correspond with the closing entry of the old company?

A. No sir, I have not checked that.

Q. Well would a checking of that disclose?

A. Yes sir it probably would.

Q. Whether it was a continuous record?

A. Yes sir, it probably would. I might make this statement. That it is a matter of practice with me always to make a notation of any missing leaves in any book of account, and I make this just in the ordinary course.

Q. Do you find any particular significance in the missing leaves in that book?

A. Well I do not believe that I went into it close enough to say whether there was any significance or not. I assume the leaves were not taken out of there without any reason, but book-keepers often take a leaf out because they make an error.

It is very bad practice. He can tell you about that better than I can.

Witness excused.

It now being six o'clock, an adjournment was taken until Saturday morning May 16, 1908 by consent of all parties.

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MAY 25, 1908.

Parties met pursuant to adjournment and by agreement of parties, at 2 o'clock P. M.

Rebuttal Testimony.

FRANK W. FRUEAUFF recalled on behalf of the plaintiff, testified as follows:

Examined by Mr. ROSE on behalf of the plaintiff:

Q. Mr. Frueauff, there has been testimony given here by Mr. Wiggins that there are some missing pages in one of the Journals of the Gas Company, I think also the production of one of the Journals here shows that there are some of the leaves taken out of it. I will now hand you the exhibit referred to, being Exhibit 140, the pages which have been noted as missing are these between 194 and 199. In 1901 what was your occupation?

A. I was secretary of the Denver Gas & Electric Company, and I did some general auditing work for the various McMillin Companies.

Q. In whose handwriting are the entries on page 194 of this book?

A. It is my writing.

Q. And you may identify in this book the entries in your handwriting entered on pages 194 and previous thereto, and state what pages are in your handwriting?

A. Commencing with pages 191, 192, 193, and 194.

Q. Now what is the purpose of that Journal entry?

343 A. Those are the closing entries of the Lincoln Gas & Electric Company.

Q. And how came you to make them?

A. I was directed to come here, and under the direction of Mr. Douthirt, I was directed to close up the affairs of the Lincoln Gas & Electric Company and open up the affairs of the Lincoln Gas & Electric Light Company.

Q. In your capacity as auditor?

A. Yes sir.

Q. Now are these the last Journal entries made of the Lincoln Gas & Electric Company?

A. Yes sir, those are final entries.

Q. And they included the business of that company up to what date?

A. To the close of November 1901.

Q. What was the occasion for closing the books of that company?

A. They sold and turned over their assets and liabilities to the new company, the Lincoln Gas & Electric Light Company.

Q. And the other records following this are the records of what company?

A. The Lincoln Gas & Electric Light Company.

Q. Beginning as if in a new Journal?

A. Yes sir.

Q. Just as if it was two books?

A. Yes sir, just as if it was two books. I might explain the circumstances as I now recollect them.

Q. You may do so?

A. We debated whether or not it would be well to purchase a new journal and commence a new record for the Lincoln Gas & Electric Light Company, and concluded that in as much as
344 but a very small part of this book had been used, we could very well use this volume, for the new company, so we opened up the new entries for the new company, the Lincoln Gas & Electric Light Company, in this same volume. Although in a sense it is an entirely different book.

Q. And on what page are the opening entries of the Lincoln Gas & Electric Light Company?

A. Commencing at page 201.

Q. In whose handwriting are those entries?

A. In my handwriting.

Q. And how many of the opening entries there are made in your own handwriting?

A. Pages 201, 202, and 203.

Q. And what period of time does the opening entries cover, what business?

A. It commences there on December 1st, 1901, the entries were made as of December 19th.

Q. Do the opening entries there, whenever made, include all of the business for the month of December of that year?

A. Yes sir, we took over from the old company their affairs as they stood at the close of November, and commenced with them as of the first of December.

Q. Then does this record contain a continuous record in point of time, from the closing of the affairs of the old company to the opening of the affairs of the new company?

A. Yes sir, it does. That can be verified by the examination of the entries where one is closed, and the affairs taken over by the old company.

Q. And does that show that the accounts were properly transferred from the old to the new company?

345 A. Yes sir.

Q. And was the *the* purpose of making the entries?

A. Yes sir, we had to close the old company and open the new.

Q. In making that charge did you suppress any of the business in the interim?

A. No sir, it was a continuous record, there was nothing to suppress. We took the balances——

Q. There wasn't anything suppressed?

A. No sir.

Q. Can you give an account or explanation for the absence of those two or three leaves there?

A. No sir, I have no recollection of that, why those leaves were taken out. Those pages were either omitted or missing. I don't know. I do know that we proposed using the old book rather than purchasing a new one, but it is a continuous record, which can be verified by tracing the various balances which are brought over. There was nothing suppressed.

Q. Is that record showing the close of the business of the old company on page 194, and the record of the opening of the new company on page 201, in the exact condition that you left it, after checking it up and making the closing and opening entries?

A. Yes sir.

Q. And is it a continuous record from the time you made the opening entries, as far as your examination shows?

A. Yes sir, it is.

Q. What do you have to do with the contracting of supplies for gas companies and the like of that, what have you had for the last two years?

A. Well I have kept in close touch with it, as secretary
346 and manager of the Denver Electric & Gas Company, I was very closely in touch with what they had purchased. In the past years I have been more directly associated with the New York office, and I have kept in pretty close touch with the purchases of all their properties in which they are interested.

Q. And supervised and approved of the contracts?

A. Yes sir.

Q. And aided in getting favorable markets?

A. Yes sir.

Q. Are you actually engaged in and concerned in that branch of the work?

A. Yes sir, that is one advantage that we think we have in our joint work, that is where we can buy at the best advantage and buy in quantities, and by so doing get some benefit.

Q. Last August Mr. Malone was called as a witness here, and he seems to have made a detailed examination of the properties here in Lincoln, with a view of ascertaining what the reasonable value of the properties were from an engineer's standpoint. Did you have anything to do with the employment of Mr. Malone?

A. Yes sir, I requested that Mr. Malone should come to Lincoln and gather the data together, and worked with him in preparing the estimate that he afterwards submitted.

Q. You did that as an officer of the company, as the vice president of the company?

A. Yes sir.

Q. In estimating the value of cast iron and wrought iron pipe did you inform yourself as to the present market value at that time?

A. Yes sir, we requested a bid in writing from the agent
347 of the United States Cast Iron Pipe and Foundry Company, which is the largest manufacturer of cast iron pipe, quoting his prices on the various sizes delivered in Lincoln, and we used that as a basis for our estimate.

Q. And was it a good faith estimate?

A. Yes sir.

Q. And from your general connection with the business, and with the connection with the purchase of such supplies, did you then know the market value of cast iron pipe of the different dimensions?

A. Yes sir.

Q. Have you the original bids that were given at that time?

A. I have sir.

Q. Are the papers that you produced those original bids?

A. This is the bid of the agent of the United States Cast Iron
Pipe and Foundry Company, marked Exhibit 150.

Q. Now were you large users of this product?

A. Yes sir.

Q. And were you able to purchase and do you know definitely whether you were able to purchase at as close a figure as other dealers?

A. Yes sir, we were able we believed, to get as good price as anyone purchasing that material in the quantities in which we bought it. We bought a very large order from that firm last year.

Q. Now are these prices that you have quoted in here the prices that you were absolutely obliged to pay or that any contractor would have been obliged to pay, at that time?

A. Yes sir.

Q. Could those have been discounted by any contractor, from those prices, in the general market.

348 A. That was the best price that we could get. I will say that we purchased from him last year because his price was lower than any quotation that we got.

Q. Now you may state from your knowledge of the market for that particular commodity, what was the reasonable and necessary market value of 4 inch cast iron pipe in the city of Lincoln last August?

A. \$39.85 per ton.

Q. And what was the necessary market cost of 6 inch 8 inch and 10 inch cast iron pipe at that time?

A. Thirty eight dollars and eighty five cents per ton.

Q. And what was the necessary cost of 12 inch and 14 inch and 16 inch cast iron pipe at that time in Lincoln?

A. \$38.60 per ton.

Q. What was the market value and necessary cost of 18 inch and 20 inch cast iron pipe at the Lincoln market at that time?

A. \$38.35 per ton.

Q. What is meant by the item "Standard Specials"?

A. Those are the connections and off takes from the pipes that are used in running like the T's and Crosses and various pieces that join one pipe to another.

Mr. STEWART: The defendant moves to strike out the testimony of the witness for the reason that it is not proper rebuttal.

Mr. ROSE: I wish to make this statement in the record. It will properly be conceded that this is not proper rebuttal testimony, but I think we ought to introduce it in corroboration of Mr. Malone's figures, and I will ask leave to introduce additional testimony on that subject in chief.

349 Q. What is the reasonable market value of those connections and T's in Lincoln, and the like of that?

A. \$65.10 per ton.

Q. You say you assisted in the preparation somewhat of the estimate that Mr. Malone made, is that correct?

A. Yes sir, I consulted with him a great deal.

Mr. ROSE: We also offer to read in evidence Exhibit 150. Exhibit 150 is read in evidence and made a part hereof.

Q. Do you know the handwriting of the party who signed that?

A. Yes sir.

Q. In whose handwriting is that?

A. The name is Duncan Bond, it is in his handwriting, he is their Denver Agent.

Q. Of what?

A. Of the United States Cast Iron Pipe & Foundry Company.

Q. You mean he is their sales agent?

A. Yes sir. His business is to accept orders and collect for them.

Mr. ROSE: The plaintiff renews his offer of Exhibit 150.

Mr. STEWART: The defendant objects to the offer as incompetent and immaterial.

Q. Mr. Frueauff, from your practical experience in connection with the management of plants in this country, you may state as to what is your opinion as to the comparative economy in the operation of the Lincoln Plant between a combined plant for the manufacture of both coal and water gas and a plant equipped only as a water gas plant?

350 Mr. STEWART: The defendant objects as incompetent irrelevant and immaterial, and no foundation laid.

A. In the operation of the combined plant in Lincoln, I have shown by the statement is more economical than to operate just a water gas plant, taking the experience of past years as a guide.

Q. Then which system in your opinion is the most efficient and economical for this particular point?

A. You mean just at this time or all things considered?

Q. All things considered?

A. The combined system of coal and water gas, all things considered is the best.

Q. What are the advantages or some of the advantages of the combined system over the water gas system alone?

A. Well due to fluctuation in the price of either coal gas or water gas materials, it is well to have either the coal or water gas to fall back upon, due to labor conditions, it is well to be able to substitute one system of gas making for the other, as the occasion requires due to the regulations regarding the candle power and heat units, it is well to be able to have both systems to secure the best results economically.

Q. Does the operation of a coal gas plant tend in any respect towards economy in running the water gas plant?

A. Yes sir, one prominent feature is the manufacture of coke. The coke in our coal gas plant furnishes us a fuel to use in our water gas machine, which we would have to buy outside, at a higher price.

Q. Would you have to use coke whether you made it or not for that purpose, practically?

351 A. Yes sir.

Q. Is there any alternative?

A. Not for operating water gas machines, no sir.

Q. Could you use anthracite?

A. Not successfully. You could but the tremendous cost would make it prohibitive.

Q. Can you use any bituminous coal, or any coal of a lower grade practically for the manufacture of water gas?

A. No sir, not as generator fuel for the water gas.

Q. In your work as the auditor and as the manager of the Denver plant, have you had any experience in collecting and compiling statistics with relation to the cost of manufacture and distribution of gas?

A. Yes sir.

Q. How elaborate a system of compiling statistics and making tabulations and compiling of detailed results have you?

A. Well in the Denver plant we have a very complete system of showing our cost of the various items running back for a great number of years, also in the New York office we have the same records of the various properties in this respect.

Q. You have the improved machinery that has been devised as aids to making rapid and accurate, *rapid and accurate*, mathematical calculation?

A. We do.

Q. What machines do you have?

A. Well one machine that we use very frequently is what is known as the Thatcher Calculator, which enables us to divide in fact as rapidly as you can put down the figures, that we use to
352 get the per thousand cost of the various items or *or* the per unit cost.

Q. What if any machines do you have to aid you in the classifying customers and the like of that?

A. We have what is known as the Hollerith Tabulating Machines which enables you to classify our customers, kind of customers, quantities used, and districts in which it was used, etc.

Q. And have you kept up your compilations and statistics for a number of years?

A. Yes sir, we keep them up constantly.

Q. Now in your experience as a statistician in this line of work what is your opinion as to whether or not you can make statistics of any particular value by merely taking one term period such as a year?

A. We would not think that it would be a reliable guide to use less than the data of a number of years.

Q. Do you rely on the statistics as an absolute guide in any particular locality, can you do that?

A. No sir.

Q. And as an aid you may state which is the more valuable to take the statistical results for a number of years, or for a single year?

A. A number of years. The greater number of years you can get the more closely you can get to reliable information.

Q. Would a theoretical prognosis of the probable business of this company for the year 1908 be relatively of the same value in determining whether a dollar rate could have been maintained by this company in the year beginning January 1st, 1907, as either the year 1906 or 1907 from actual experience?

353 Mr. STEWART: The defendant objects as incompetent irrelevant and immaterial, and no foundation laid.

A. No sir, it would not be as reliable.

Q. Is any prognosis of a year to follow, as accurate as the exhibit of the practical experience of any given years?

A. No sir.

Q. What is your opinion from your actual experience in this line of work whether it is practical or probable that this company in a year to follow, or in the year 1908 the current year, would show any saving or economy in the manufacture of gas in this plant at Lincoln from the added savings on residuals?

Mr. STEWART: The defendant objects as immaterial irrelevant and incompetent.

A. I do not think there will be an added saving from residuals in the coming year.

Q. What would be your opinion as to whether any calculation of a saving could practically be made at this time?

Mr. STEWART: The defendant objects as incompetent.

A. I do not think that there would be any warrant to assume that there would be any further saving.

Q. Practically would you personally predict that there would be any saving?

Mr. STEWART: The defendant objects as incompetent.

A. No sir, I would not predict that there would be.

Q. And what would be your opinion as to whether the experience for the ensuing year, or the current year here when it is concluded, of it would show any economy or saving in the cost of manufacturing gas, upon the item of legal expenses alone?

354 Mr. STEWART: The defendant objects as incompetent, irrelevant and immaterial.

A. No sir, I do not believe there will be any saving. If you want my prediction I would predict that our legal expenses would be more instead of less.

Q. What is your opinion as to whether the gas plant here at Lincoln, can practically or probably be affected in the economy of saving in the manufacture of coal or water gas, on account of reduced expenses, for obtaining new business alone?

A. No sir, one would have nothing to do with the other.

Q. Would you think it would be practical, or tend to the general economy of manufacture and distribution, to reduce the ratio of expenses incurred for obtaining new business?

A. No sir, I do not believe it would.

Q. Where your reduced schedule of prices is arbitrarily put into effect, is there any way to make up the net revenues of the company, other than to increase the output or sales of the company, so as to enable it to do business on a smaller percentum of profit?

A. Only by increased sales.

Q. In such a contingency where the schedule or rates is decreased is it practical for the company to continue business, without increasing its ratio of expense for the item of new business or promotion?

Mr. STEWART: The defendant objects as not proper rebuttal because it has not been gone into, and as incompetent and immaterial.

A. No sir, it would not be practical, the reduction of itself would bring little or no new business to the company.

355 There must be a new business campaign conducted to increase the sales materially, which would be an added expense such as would bring with it an increase in sales.

Q. Is there any known way in the practical operation of such plants by which the company could get any considerable advantage from a reduced rate, other than by advertising generously and employing solicitors to canvass?

A. No sir, I know of none.

Q. From your knowledge of the business here at Lincoln, and as an officer of the company, could the capacity for making water gas be increased without an increase in the invested capital of the company?

A. No sir, you would have to have additional equipment and that would mean the investment of additional funds, and that would add to the interest charges of the company?

Q. It seems that the reports for 1907 have been completed and brought into the case here, since the complainant took its testimony last September. Do you know whether or not the company has invested in the meanwhile any additional capital or funds here?

A. It has, sir.

Q. At any considerable cost, do you know about what it is?

A. At a cost of something in excess of 7% for the money, amounting to—I could not give you that without reference to the book, somewhere about—

Q. Has the company purchased any new equipment?

A. It has, yes sir. It has laid additional mains, and put in additional meters, and putting in additional water gas apparatus.

Q. And it has incurred the cost of those?

356 A. Yes sir.

Q. Is there any recognized rule among gas companies or gas operators that they should have a storage capacity equal to two thirds of their daily output of gas?

A. No sir, there is not set rule for that it depends largely on their local conditions, their ability to carry a large excess in capacity, or to run on a limited scale of holder capacity. It varies with every plant you go into the quantity of holder capacity they have.

Q. In the practical operation of a gas plant, would it in any wise tend to economy, where a main had become deficient, a 4 inch main for example, to reinforce the mains in that particular line by putting in another side by side, another small main?

A. No sir, as a rule they take out the smaller main, and put in a larger one.

Q. Is there any reason why the one or the other is more economical or efficient in the long run?

A. There is more economy in operating one main than in operating two. If the small main becomes inadequate it is better to take out that small one and put in the larger one, and use that pipe in some other locality.

Q. Now referring to the plan suggested by Professor Bemis, here how would the running of one small main by another affect the number of joints in the main, in that particular service?

A. It would just double them in a given distance.

Q. And how would that effect the gas lost by leakage?

A. Increase the likelihood of leakage and opportunities
357 for leakage.

Q. Now in the distribution of the expenses here to the two departments of this company, that is the gas department and the electric department, have you any correction that you desire to make in your former testimony, as to the justness of that division?

A. A number of the joint expenses, such as the expense of the collection department, and the management and items of that sort, where we have favored the gas department at the expense of the electric department, for example, in the matter of our clerical expenses, and office expenses, etc., we have apportioned it on a basis that favored the gas department and harmed the electric. Those expenses ought to be divided more among the number of consumers supplied than at present.

Q. Is the volume of clerical work dependant upon the number of services or meters?

A. Yes sir, it follows them very closely.

Q. And if that plan had been adopted would the gas department have a greater or less proportion then that allowed here, of two thirds?

A. The portion chargeable to the gas department would have been greater, and the electric department less.

Q. Can you give approximately what the increase would have been?

A. My recollection is that it has been divided about one half and one half, while we have about twice as many consumers as electric.

Q. I thought it was divided in the proportion of one to two?

A. I am not sure about that. At any rate they have not been divided in the proportion to the consumers of each class supplied; that ought to be more closely apportioned.

58 Q. Which department has the greatest number of consumers?

A. The gas department very much.

Q. More than twice?

A. I cannot tell you from memory, yes sir, more than twice.

Q. There has been some estimate given here by some witness Mr. Trueaff, as to whether or not the rate of a dollar per thousand feet of gas if enforced against this company for the year 1908 would probably allow a sufficient profit to fairly reward the stock holders after paying costs of distribution and manufacture, and maintenance and depreciation, would that rate if enforced in your opinion, yield any return to the invested capital in this company under a fair and economic management of the plant?

Mr. STEWART: The defendant objects as incompetent immaterial and irrelevant, and not a subject of expert testimony, and being a conclusion of the witness.

A. No sir, for the reason that he supposed various savings in operation that are not justified by the experience of the past, and without those savings we would have a serious deficit.

Mr. STEWART: The city moves to strike out the answer as to what the witness supposed from some unknown third party as not responsive to the question.

Q. In your opinion would the rate of a dollar gas under a fairly economic and honest administration of the affairs of this company, enable it to yield a net profit over and above the expenses of manufacture, distribution and maintenance, of 23 to 26 cents per thousand feet?

59 Mr. STEWART: The defendant objects as immaterial irrelevant and incompetent and a matter for the court to determine, and not for this witness to determine, and no foundation laid.

A. No sir.

Q. Now then on the actual experience of this company for the year 1907, what in your opinion would have been the effect upon the ability of the company to continue the business, had they collected at the net rate only of one dollar per thousand feet of gas delivered thru the meters to the consumers?

Mr. STEWART: The defendant objects as incompetent immaterial and irrelevant, and for the reason that it is not a matter of expert testimony, and a matter to be decided upon the facts as shown by the evidence and to be determined by the court.

A. They would have been bankrupt if they had had to have done that, we would not have been able to have paid our just obligations.

Q. You to a degree supervise the accounts of this company at the time?

A. Yes sir.

Q. And are acquainted in a general way with the disbursements of its funds?

A. Yes sir.

Q. And for what uses they go to?

A. Yes sir.

Q. Under the experience of the year 1907 which includes a period of time since you testified in chief, how much would a difference of

20c per thousand feet have affected the revenues of the
360 company in that year, if you have the report for 1907 in front of you?

Mr. STEWART: The defendant objects as immaterial, irrelevant and incompetent, for the further reason that there is no foundation laid, and as being a matter shown by the evidence.

A. There was 179,366,000 cubic feet sold in 1907, a reduction of 20 cents per thousand would have been \$35,873.20.

Q. And if the rate had been one dollar per thousand that year actually collected by the company, what sum would the occupation tax, involved in this suit, have required the company to pay into the city at the rate of $2\frac{1}{2}$ per cent of the gross receipts.

Mr. STEWART: The defendant objects as immaterial, irrelevant and incompetent.

A. \$4,480.15.

Q. Now what is the aggregate of those two items?

A. \$40,353.35.

Q. Now you may state from your knowledge of the affairs of the company and of the affairs of the business, whether in the actual experience that the company underwent, in 1907 it could meet that reduction over and above the rates that it collected, and whether if it was called upon at this time to pay the tax, and to refund the difference in the rate to the consumer, it could do so, and continue business.

Mr. STEWART: The defendant objects as incompetent, immaterial and irrelevant.

A. No sir, it could not do it.

361 Q. Could it do so and have any earnings of any sort to devote to the payments of its invested capital?

Mr. STEWART: The defendant objects as immaterial, incompetent and irrelevant.

A. No sir.

Mr. STEWART: The defendant moves to strike out the answer of the witness for the reason that it is contrary to the admitted facts in this case.

Cross-examination.

Examined by Mr. STEWART on behalf of the defendant:

Q. You say you made these entries in this journal where the leaves are missing?

A. Yes sir.

Q. Made the closing entries of the Lincoln Gas & Electric Company, and the opening entries of the Lincoln Gas & Electric Light Company?

A. Yes sir.

Q. And in what capacity were you working at that time?

A. I was secretary of the Denver Gas & Electric Company; but I a number of times have done auditing work for other companies when they sent for me in that capacity.

Q. The Denver Company was a company that Mr. Dougherty was also interested in was it not?

A. Yes sir.

Q. Who was it bought the Lincoln Gas & Electric Company. At this time when these closing entries were made?

A. The Lincoln Gas & Electric Light Company.

Q. Yes I know but what individuals made the purchase?

A. Well there were a number of people, the only ones I knew in it at all where Mr. Dougherty, and Mr. McMillin who represented other people with them, who they were, I do not know.

Q. You say then, as far as you know, Mr. McMillin and Mr. Dougherty were the only individuals interested in the purchase of the Lincoln Gas & Electric Company?

A. Those were the only ones I knew, my employment was by them.

Q. You are now Vice President of the Lincoln Gas & Electric Light Company?

A. Yes sir.

Q. How long have you held that position?

A. Two years I think, either two or three years.

Q. How long have you been in the employ of that company?

A. The Lincoln Gas & Electric Light Company?

Q. Yes the plaintiff in this case?

A. Well I have never been employed other than acting in the Vice President, except on special work like this.

Q. You say you have been Vice President for two years?

A. It is either two or three years.

Q. And where did you get the data from which you made the opening entries of the Lincoln Gas & Electric Light Company?

A. From information from Mr. Dougherty, or from the books of the previous company.

Q. Did you as Vice President of the company keep any of the general books of the Lincoln Gas & Electric Light Company, in New York, or have anything to do with them?

A. Why we do in this respect, that copies of the various reports are sent there, and data compiled from them, and I make it a point to examine the reports as they come in from time to time, and comment and criticise on them?

Q. Do you keep any books, does the company keep any books in New York?

A. Do you mean as company books?

Q. Yes?

A. No, nothing but the copies of the monthly reports, the condensed balance sheet, etc.

Q. Are the stock books kept there?

A. I am not sure of that, my belief is that the stock books are kept in Emerson McMillian & Company's office, who are the transfer agents of the company, and not in the office of Doherty & Company.

Q. Did you testify in your direct examination in regard to the amount of outstanding stocks and bonds of the company?

A. I don't think I did.

Q. Do you know anything about that?

A. My memory is a little hazy on it. There are two and one quarter millions of stock outstanding, \$333,000 of six per cent first mortgage bonds, and I cannot give you the exact number but about 700,000 general five per cent mortgage bonds.

Q. Did you know anything about that when you made these opening entries, did you know anything about the amount of outstanding stocks and bonds, when you made the opening entries of the Lincoln Gas & Electric Light Company, in the book before you?

A. Yes sir, I either secured that information from the records of the old company, or was given that information at the time

364 I made this.

Q. Well was the old company's stock and bonds left outstanding?

A. It was taken up I believe, it was bought in or exchanged for the securities of the new company.

Q. But they were not left outstanding?

A. No sir.

Q. Were any of the bonds left outstanding?

A. I would want to consult the books before I answer that definitely. The Lincoln Gas & Electric bonds were taken up and the Lincoln Gas & Electric Light Company bonds issued. But the old Lincoln Gas bonds could not be taken up those remained outstanding.

Q. How much were they?

A. \$333,000 I think it was.

Q. Those were left outstanding?

A. Yes sir.

Q. \$333,000?

A. Yes sir.

Q. And it was bought subject to them?

A. Yes sir.

Q. Was there any additional stocks and bonds issued by the Lincoln Gas & Electric Light company, the plaintiff in this case, at the time it bought the old company?

A. Yes sir, the old company surrendered up \$655,000 or the holders surrendered up \$655,000 of the old company bonds, and also turned in \$77,000 in cash and received for it \$723,100 of the new company's bonds.

Q. Who were those parties that surrendered up those bonds?

A. I don't — them as individuals.

365 Q. Well did you know who they were at the time you made those entries?

A. No sir.

Q. How did you know that they surrendered them up?

A. Well my recollection is that at a director's meeting held at that time, the proper resolution was *past* covering that transaction.

Q. Authorizing it?

A. Yes sir.

Q. But whether they did really surrender them up, you do not know do you?

A. Not to have seen them surrendered up, no sir.

Q. You do not even know who the parties were who held them?

A. No sir, as I said Mr. McMillian and his associates, represented them, who they were, I do not know.

Q. Well and you do not know who bought the old company?

A. Not as individuals. Mr. McMillian was their authorized representative.

Q. Do you know who owns the stock in the present company?

A. I have seen a list of the stock holders repeatedly, yes sir.

Q. Do you know who owns the bonds of this company?

A. No sir, that I do not, except I occasionally runs across people who say they have some of them.

Q. These people who bought the old company, the individuals who bought the old company, you do not know, you say, who they were?

A. No sir.

Q. And you do not know what they paid for the old company?

366 A. Except as I give it there, they assumed the assets and liabilities of the old company, and turned back the old securities and received the new ones.

Q. Who turned back their old securities?

A. The holders represented by Mr. McMillan.

Q. Do you mean the purchasers of the old company?

A. Yes sir. Well I say—I would not say they turned theirs over, or some one else turned them in, I do not know; I would not say they were exchanged by the individual holder from one security to the other or not. I would not say the individual holder made the exchange.

Q. Do you mean to state, that the holders of the bonds of the old company, bought the old company out and then organized the new company?

A. As to that I could not state, I do not know.

Q. You don't know anything about the facts of the transaction?

A. Only from hearsay at that time, no sir.

Q. And altho you are vice president of the company you do not know who holds the bonds?

A. No sir, we have no direct interest in them. The money to pay the coupons is deposited with the Fiscal Agent in New York and the coupons are presented by banks or trust companies or individuals.

We have no record showing who those people are and have no way of knowing.

Q. Do you know whether it is a fact or not that the officers of the present company, whether some of them hold these bonds or a portion of them?

A. I cannot speak for any of the others. I have none of the bonds.

367 Q. Well do you know whether any of the other officers do hold any?

A. No sir, I don't know.

Q. You don't know anything about that?

A. No sir.

Q. Your mind is a complete blank on that subject?

A. No sir it is not — complete blank on the subject, I do not know whether they do or not. I know they are all stock holders, but whether they are bond holders or not I do not know.

Q. You do not know whether they have any of the bonds whatever?

A. That I do not know, no sir. I know Doherty owns the company's notes for money, he has advanced them.

Q. And to what amount?

A. To the amount of \$20,000.

Q. That shows on the books I suppose?

A. Yes sir.

Q. Did you state how many bonds you understood there are outstanding now?

A. Something over \$700,000. I did not give the exact number, I don't know.

Witness excused.

368 HOMER HONEYWELL recalled for further cross-examination.

Examined by Mr. STEWART on behalf of the defendant:

Q. Do you — how many of the bonds of the Lincoln Gas & Electric Light Company are now outstanding?

A. If I remember correctly there are \$796,600.

Q. Does that include the 7% notes?

A. No sir, those are bonds.

Q. Nor any bonds that are out as security for notes?

A. No sir, nor any bonds issued by any other company.

Q. That is, that does not include the *the* \$333,000 of the old Lincoln Electric & Gas Company?

A. No sir.

Q. Can you tell me when those bonds were issued in a general way and in what amounts?

A. Oh, from time to time.

Q. How many were originally issued?

A. I don't remember that.

Q. At the time the company was organized?

A. I don't remember that.

Q. I will ask you to look at page 11 of Exhibit 151 that is the minutes of the meetings of the directors of the present company, it recites, does it not that it appears that this company, that is the Lincoln Gas & Electric Light Company, purchased the property of the Lincoln Gas & Electric Company, and assumed and agreed to pay \$655,000 par value of the Lincoln Gas & Electric Company's First consolidated mortgage 5% bonds issued under the company's mortgage July 10, 1900. Was that the first issue of bonds
369 so far as you know?

A. I do not know, this is not in my writing.

Q. Do you know anything else about the facts in the case?

A. No sir.

Q. You do not know about how many bonds are out?

A. Not then I do not, I do now.

Q. How do you get at it?

A. Because I pay bond interest on them now. The coupons are returning to me.

Q. Don't you have the book in your possession showing the issuance of the bonds?

A. Yes sir.

Q. Can't you turn to them and tell us when they were issued?

A. Yes sir, if I had the ledger here I could.

Q. I will ask you to look up, Mr. Honeywell, the item of \$2500 that was expended in March, 1907, in putting a hinman drum in the station meter and tell me to what account that was charged?

A. That was a repair item and was charged to operating expenses.

Q. And what would be the life of that drum?

A. Oh, I think that would last 15 or 16 years, possibly 20 years.

Witness excused.

370 B. C. ADAMS, being recalled on behalf of the plaintiff, testified as follows:

Examined by Mr. ROSE on behalf of the plaintiff:

Q. Are you the superintendent of the gas works here?

A. I am.

Q. How long have you held that position?

A. Two years the 1st of July.

Q. Do you supervise and superintend the work of construction in the streets?

A. Yes sir.

Q. And are you familiar with the improvements that are made?

A. Yes sir.

Q. And with what are the practical requirements for trenches and the like of that?

A. Yes sir.

Q. In actual experience what is the width of a ditch required to be dug for laying a two inch main in dirt?

A. 18 inches.

Q. And if you open the asphalt what is the actual width that is actually required?

A. Twenty four inches.

Q. And if you open a brick pavement what is the actual width required, in actual practice, for the laying of a two inch main?

A. Twenty six inches.

Q. And in actual practice what width of ditch is required for laying a four inch main?

A. In dirt 18 inches.

371 Q. And in pavement?

A. Asphalt 24 inches, brick 26 inches.

Q. And in actual practice what are the actual requirements of a trench in width in laying a 6 inch main in dirt?

A. 20 inches.

Q. And in pavement?

A. Asphalt 26 inches and brick 28 inches.

Q. And what width in actual practice do you make a ditch for an 8 inch, give the other dimensions that you use?

A. For the different sized pipes?

Q. Yes?

A. Eight inch pipe, we make a 24 inch ditch in dirt, 30 inch in asphalt, and 32 inch in brick. The average depth of those ditches do you want?

Q. Yes?

A. Eight inch pipe will be 4 feet 8 inches, 10 inch mains, we dig a 24 inch ditch, in dirt street, 30 inch in asphalt and 32 inch in brick pavement, those ditches are 4 feet 10 inches deep on the average. Twelve — iron mains requires a 30 inch ditch in dirt, 36 inch in asphalt, and 38 inch in brick, the average depth of the ditch is five feet. Sixteen inch mains requires a 30 inch ditch in dirt, 36 inch in asphalt, and 38 inch in brick; the average depth of the ditch is 5 feet 4 inches. Eighteen inch mains requires 38 inch in dirt, 42 inch ditch in asphalt, and 44 inch in brick. The average depth is 5 feet 6 inches. Twenty inch mains requires 36 inch ditch in dirt, 42 inch in asphalt, and 44 inch in brick; the average depth is five feet eight inches. Our services, one and a quarter inch service, requires an 18 inch ditch in dirt, 24 inch in asphalt, and 26 inch in brick; and the average depth is three feet six

372 inches.

Q. In trenches this deep in order to make connections do the workman have to go in and work with tools?

A. Yes sir.

Q. Now in practical operation in trenches that deep, can workman work with efficiency and profit in a ditch only 12 inches wide?

A. I think not.

Q. If a person had a foot as big as mine, he could not get them acrosswise in it?

A. No sir, he could not get in it.

Q. You give the orders for this work?

A. Yes sir.

Q. In actual practice out on the street are you accustomed to tunneling and boring?

A. We have done it, but very seldom. We consider it bad practice for this reason, because when you do tunnel in this soil, it is almost impossible to make a tunnel straight, the tool will twist and turn and go up and down and the pipe, after being put in there, follows the grade left by the tool, and will not drain properly. It reduces its capacity by collecting moisture in the low portions and reduces the cross section of the pipe available for the passage of gas.

Q. Is there any wood block here in Lincoln?

A. Yes sir.

Q. Have you ever been called upon to make openings in it, or do you have gas mains under them?

A. Yes sir, we have gas mains under them.

Q. Have you examined those wood block districts, and
373 know personally as to whether they have a concrete bed under the blocks?

A. I could not say as to that. It has been reported to me that there is concrete under those wooden blocks, I have not seen it myself.

Q. As a practical engineer in work of this sort, Mr. Adams, would there be any economy where the capacity of a main in any section was crowded, in leaving a main of deficient size in the ground, and attempting to reinforce it by digging another trench and laying another pipe parallel to it, the same or a smaller size?

A. It is poor practice Mr. Rose, because it can be figured out with a piece of paper and a pencil that it would be cheaper to take out the smaller pipe and put in a much larger in its place.

Q. Now is it effective?

A. It is effective in the saving on the cost of the pipe, and in the leakage, and in the care of the mains after being laid. If you have two pipes you have two to take care of instead of one.

Q. Well, can you make use of the old main if it has not run its life?

A. Yes sir.

Q. And if it is not destroyed?

A. Yes sir, it can be taken out and used in sections further from the center of distribution.

Q. Where the size will meet the demand upon it?

A. Yes sir.

374 Cross-examination.

Examined by Mr. STEWART on behalf of the defendant:

Q. Whereabouts is this wooden block pavement?

A. There is some around the University Grounds, and some down on F street.

Q. How much out around the University?

A. There is some on the north side?

Q. How much?

A. A block,—there is more than a block down on F Street, west of 11th street, I know that, and I have gone over other block paving, but I could not locate it right now.

Q. There is not much of it left, that is even in those places that you designate the block is pretty near all gone.

A. By George, it is so fough that a man hangs on with both hands to a buggy seat to keep in a carriage.

Witness excused.

375 PAUL HOLM, being produced and duly sworn on behalf of the plaintiff, testified as follows:

Examined by Mr. ROSE on behalf of the plaintiff:

Q. What is your occupation?

A. Real Estate business.

Q. As an agent and dealer?

A. Yes sir.

Q. And where are you located?

A. 1045 O Street.

Q. In the City of Lincoln, Lancaster County, Nebraska?

A. Yes sir.

Q. And how long have you been engaged in that business in this city?

A. About 22 years.

Q. Have you been active in the business continuously?

A. I think so.

Q. Sold more property than any other agent that ever lived in Lincoln?

A. I will not say that.

Q. But you have been a large dealer?

A. I have been quite a large dealer.

Q. Are you acquainted with the market value of real estate in this city, and all over this city?

A. Fairly well.

Q. Are you acquainted with Block 79 on which the Lincoln Gas & Electric Light Company maintains a distributing plant in part?

A. Yes sir.

376 Q. What in your opinion is a fair and reasonable value of that block, containing 12 lots, exclusive of all improvements, and taking into account its nearness to the tracks and what other advantages it may have?

A. Why about 600 dollars a lot for the inside lots and about \$700 for the corners.

Witness Excused.

377 S. W. CHENEY, being produced and duly sworn on behalf of the plaintiff, testified as follows:

Examined by Mr. ROSE on behalf of the plaintiff:

Q. What is your business?

A. I am employed by the Lincoln Gas & Electric Light Co. As Superintendent of Distribution.

Q. What experience have you had in laying mains and services for them?

A. Why I have been with this company for nearly two years now in this capacity, and I was with the Denver Gas & Electric Co. for about a year, not particularly in distribution work but in General work.

Q. Do you have anything to do with the construction or reconstruction or repair of the distribution system?

A. Yes sir.

Q. Including the work of services and the like of that?

A. Yes sir.

Q. What in actual practice is the width required to lay a small pipe, a service pipe, a two inch main, or a four inch main, the width of a ditch?

A. Eighteen inches for a two inch main or smaller, and probably well 20 inches for a four inch main.

Q. And what is the average depth of the ditch required for services in this city?

A. Well it runs from—

Q. The average, just give the average.

A. I should say about four feet.

378 Q. Do you know in actual practice about how many feet of ditch one may will dig in a day in this city?

A. No sir, I do not know absolutely.

Q. I say approximately, do you know approximately about what it would average?

A. Between 10 and 20 lineal feet of an 18 inch ditch.

Q. That is about 4 feet deep?

A. Yes sir, the average ditch.

Witness excused.

Plaintiff rests.

The further taking of testimony was adjourned to be taken up again at the consent of the parties.

379 Mr. STEWART: The defendant offers in evidence Exhibit 123, Summary of the 12 months' year ending December 31, 1902.

Mr. STEWART: The defendant offers in evidence Exhibit 124 Gas report by month for year 1903.

Mr. STEWART: The defendant offers in evidence Exhibit 125 Expenses and earnings of gas department, 1904.

Mr. STEWART: The defendant offers in evidence Exhibit 126 Earnings and expenses of gas, 1905 in months.

Mr. STEWART: The defendant offers in evidence Exhibit 127 Earnings and expenses of gas, 1905 for the year.

Mr. STEWART: The defendant offers in evidence Exhibit 128, Earnings and expenses of gas, 1906 for 12 months.

379½

Ex. 101.

MANUFACTURING AND EXPENSE REPORTS
OF
GAS DEPARTMENT
FOR YEAR ENDING DEC. 31, 1907.

REPORT FOR

9

GROSS EARNINGS

	FROM SALE OF GAS	AMOUNTS		Increase or Decrease	Receipts per M. Sold	
		This Year	Last Year		This Year	Last Year
900	Illuminating Purposes,					
901	Domestic Fuel "					
902	Industrial Fuel "	214 516 57			1.1960	
903	Power "					
904	Street Lamp "					
905	Total from Gas Sales,	214 516 57			1.1960	
906	Meter charge on Minimum Bills,	693 53			.0039	
907	Forfeited Discount,	304 110			.0170	
908	Total Earnings from Gas,	218 251 20			1.0169	
909	Bad Debts,	2475 00			.0138	
910	Gross Earnings Gas Dep't,	215 776 20			1.2031	
911	Operating Expenses (Total) (917)	141 924 87			.7912	
912	Net Earnings Gas Dep't,	73 851 83			.4119	

SUMMARY OF OPERATING EXPENSES

	Plant	Output	Meters		TOTAL COST	
			Consumers	Meters	This Year	Last Year
913	Manufacturing (1260)	12 818 56			86 233 19	
914	Distribution (1309)	11 860 86	4 149 64	2 467 55	17 978 05	
915	Collection (1406)		6 027 13	2 570 62	8 597 75	
916	General (1509)	29 115 38			29 115 38	
917	Totals	53 294 80	10 176 77	5 038 17	141 924 37	

SUMMARY OF OPERATING EXPENSES, PER UNIT

	- Per M. Sold		Per Consumer		Per Meter	
	Plant	Output	Consumers	Meters	Consumer Charges	Total Meter Charges C. & M.
913a	Manufacturing (1260)	.0765 .4093				
914a	Distribution (1309)	.0683	.0231 .0138	.4808	.6771 .4026	.10797
915a	Collection (1406)		.0336 .0143	.0479	.9836 .4951	.4031
916a	General (1509)	.1623		.1623		
917a	Totals,	.2971 .4093 .0567 .0281			1.6607 .8221	2.4828

SUMMARY OF GAS SALES.

(POPULATION THIS YEAR 47000 LAST YEAR)

	Total Sales (Cu. Ft.)		No. of Meters		Average Sale per Meter		Avg. Sale per Capita	
	This Year	Last Year	This Year	Last Year	This Year	Last Year	This Year	Last Year
918	Ill'tg Gas,							
919	Dom. Fuel Gas,							
920	Ind. Fuel Gas,							
921	Power Gas,							
922	Total Fuel Gas,	179 366 300			29 165		3 816	
923	Total Private Sales,	179 366 300	5 926		29 165		3 816	
924	Street Lamps,							
925	Total Sales,	179 366 300						

CONSUMERS

	No. Using		Both	Total No. Consumers		Total Using	
	Ill'tg Gas Only	Fuel Gas Only		Ill'tg Gas	Fuel Gas	Ill'tg Gas	Fuel Gas
926	First of Month,			5 882			
927	New during Month,			2 199			
928	Total,			8 081			
929	Off during Month,			1 837			
930	Close of Month,			6 244			
931	First of Year,			5 882			
932	Gain or Loss,			3 62			

CONSUMER DATA

	Ill'g Sales per Ill'g Consumer	This Year	Last Year	Inhabitants per Ill'g Consumer	This Year	Last Year
41	Dom. F " " Dom. F. "			" " Dom. Fuel "		
42	Indust'l " " Ind. "			" " Ind. Fuel "		
43	Power " " Power "			" " Power "		
44	Average Sales per Consumer,	29 030		" " Consumer	7603	

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	Plant Expense	Output Expense	Output per M.	Total Cost		Total Cost per M.
				This Year	Last Year	
1000 Coal Carbonized 7098 57 @ .5935		42 844 46	.6139	42 844 46		1.6139
1001 Enricher <i>Evaporator</i> @		178 41	.0026	178 41		.0026
1002 Bench Fuel 49849 89601 @ .559		5347 42	.0766	5347 42		.0766
1003 Total Cost C. G. Mfg. Material 1175		48370 29	.6931	48370 29		.6931
1004 Coke Residual 443.632822 @ 1.3		20537 73	.2943	20370 29		.2943
1005 Tar " 57413 @		1248 26	.0179	1248 26		.0179
1006 Ammonia " @						
1007 Carbon " @						
1008 Total Residuals		21785 99	.3122	21785 99		.3122
1009 Net Cost C. G. Mfg. Material		2658430	.3809	2658430		.3809
1010 Retort House Labor	60000	510818	.0732	5170818		.0818
1011 Bench Repairs, "		4022 24	.0576	4022 24		.0576
1012 Retort House Expense		20154	.0029	20154		.0029
1013 Total Cost Generating Coal Gas		35716 26	.5146	36516 26		.5232
1014 Steam		1649 97	.0236	1649 97		.0236
1015 Purifying C. G., Labor, Exp. & Repairs		38668	.0055	38668		.0055
1016 " " Material		38913	.0056	38913		.0056
1017 General Works, Bldgs., Repairs (C. G.)	81240			81240		.0116
1018 " " Apparatus, " (C. G.)	90862			90862		.0130
1019 Sundry Labor (C. G.)	130351			130351		.0187
1020 Works Expense and Supplies (C. G.)	87850			97850		.0126
1021 General Supervision (C. G.)	105267			105267		.0151
1022 District Holder Station (C. G.)						
1023 Total Purification and Storage	495570	242578	.0347	738148		.1057
1024 Total Cost Coal Gas in Holder	55570	383204	.5493	4399774		.6290

69,789,600 Cu.
Ginger
7098.57 Ton.

	COAL GAS STATISTICS		This Year	Last Year
1029	Coal Gas made			
1030	Kind of Coal used			
1031	Coal Carbonized			
1032	Yield per lb. Coal			
1033	Cost of Coal per ton			
1034	Average number retorts in use			
1035	Average charge per retort			
1036	Average make per retort. Per 24 hrs.			
1037	Average make per man charged acc't No. 1010. Per 24 Hrs.			
1038	Coke made per ton Coal Carbonized			
1039	Coke used for Bench Fuel			
1040	Coal " " " "			
1041	Receipts for Coke per ton sold			
1042	" " " per ton Coal Carbonized			
1043	Tar made per ton Coal Carbonized			
1044	Receipts for Tar per "			
1045	" " " per gal. sold			
1046	Ammonia made per ton Coal Carbonized			
1047	Receipts for Ammonia "			
1048	" " " per lb. sold			
1049	Carbon sold			
1050	Price received for Carbon per ton			
1051	Gas Purified per bu. per charge			
1052	Spent Oxide sold Tons @ \$			
1053				
1054	Illuminating Power { Max.			
1055	{ Min.			
1056	{ Avg.			
1057	Heat Units (B.T.U.) { Max.			
1058	{ Min.			
1059	{ Avg.			
1060				
1061				

REPORT FOR

MANUFACTURING DEPARTMENT. WATER GAS

	Plant Expense	Output Expense	Output per M.	TOTAL COST		Total Cost per M
				This Year	Last Year	This Yr. Last Yr
1100 Steam for Generating Water Gas, <i>cost</i>		4 183 74	.0315	4 183 74		.0315
1101 Generator Fuel, 2698.18 Tons @		14 491 19	.1090	14 491 19		.1090
1102 Enricher, 4930.24 @ .042		20 628 74	.1551	20 628 74		.1551
1103 Total W. G. Making Material, <i>458.07</i>		39 298 67	.2952	39 298 67		.2952
1104 Water Gas Tar Residual Acct. .02		916 14	.0069	916 14		.0069
1105 Net Cost W. G. Mfg. Material,		38 382 53	.2887	38 382 53		.2887
1106 Gas Making Labor,		3 757 66	.0281	3 737 66		.0281
1107 Repairs to W. G. Gen. Apparatus,		1 045 53	.0079	1 045 53		.0079
1108 W. G. Generating House Expense,		24 03	.0002	24 03		.0002
1109 Total Cost Generating W. G.,		43 189 75	.3249	43 189 75		.3249
1110 Steam,		880 78	.0066	880 78		.0066
1111 Purifying W. G. Labor, Exp. and Rep.,		799 10	.0060	799 10		.0060
1112 Purifying W. G. Material,	253 03	392 04	.0030	392 04		.0030
1113 General Works Repairs, Buildings,	996 16			996 16		.0075
1114 General Apparatus Repairs,	2266 18			2266 18		.0170
1115 Sundry Labor,	1662 97			1662 97		.0145
1116 Works Expense and Supplies,	2084 52			2084 52		.0157
1117 General Supervision,						
1118 District Holder Station,						
1119 Total Cost Purification and Storage,	7262 86	2 071 92	.0156	9334 78		.0702
1120 Total Cost Water Gas in Holder,	7262 86	45 261 67	.3405	52152 63		.3951

WATER GAS STATISTICS

	This Year	Last Year	
1130 Water Gas Made,	132 930 600	Cu. Ft.	
1131 Enricher Used,	495 024	Gals.	
1132 Enricher Used per M.	3 7	Gals.	
1133 Candles per Gal. Enricher,			
1134 Boiler Fuel per M.,		Lbs.	
1135 Generator Fuel per M.,	40 6	Lbs.	
1136 Number of Runs,	30 649	Cu. Ft.	
1137 Average Make per Run,	4 330	Cu. Ft.	
1138 Average Make per Gas Maker per 24 Hours,	91 000	Cu. Ft.	
1139 Gas Purified per Bu. Material per Change,			
1140 Tar Made per M. Cu. Ft. Gas,	.35	Gals.	
1141 Tar Made per M. Gal. Oil Used,	94 6	Gals.	
1142			
1143			
1144			
1145 Illuminating Power Water Gas, { Max. Min. Avg. }	C. P.	C. P.	C. P.
1146	C. P.	C. P.	C. P.
1147	C. P.	C. P.	C. P.
1148 Heat Units, (B. T. U.) { Max. Min. Avg. }	B. T. U.	B. T. U.	B. T. U.
1149	B. T. U.	B. T. U.	B. T. U.
1150	B. T. U.	B. T. U.	B. T. U.
1151			
1152			
1153			
1154			
1155 Illuminating Power, { Max. Min. Avg. }	C. P.	C. P.	C. P.
1156	C. P.	C. P.	C. P.
1157	C. P.	C. P.	C. P.
1158 Heat Units, (B. T. U.) { Max. Min. Avg. }	B. T. U.	B. T. U.	B. T. U.
1159	B. T. U.	B. T. U.	B. T. U.
1160	B. T. U.	B. T. U.	B. T. U.
1161 Sulphur Contents, { Max. Avg. }			
1162			
1163 Oxygen Contents, { Max. Avg. }			
1164			
1165			

MIXED GAS STATISTICS

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MANUFACTURING DEPARTMENT. PURCHASED GAS

	Plant Expense	Output Expense	Output per M.	TOTAL COST		Tot. Cost per M.	
				This Year	Last Year	This Yr.	Last Yr.
1200	Crude Gas Purchased,						
1201	Power for Pumping,						
1202	Enricher,						
1203							
1204	Total Cost Materials,						
1205	Tar,						
1206	Ammonia,						
1207	Total Residuals,						
1208	Net Cost Materials,						
1209	Steam,						
1210	Purifying Pur. Gas, Labor, Exp. & Rep.,						
1211	" " " Material,						
1212	General Works Rep. Bldgs.,						
1213	General Apparatus Repairs,						
1214	Sundry Labor,						
1215	Works Expense and Supplies,						
1216	General Supervision,						
1217	District Holder Station,						
1218							
1219							
1220							
1221	Total Purification and Storage,						
1222	Total Cost Purchased Gas in Holder,						
1223							
1224							
1225							
1226							
1227							
1228							
1229							

MANUFACTURING DEPARTMENT. MIXED GAS

1250	Total Cost Manufg Coal Gas,	55570	38342.04	5492	43897	74	.6288
1251	" " " Water Gas,	726286	45261.67	.3405	52524	53	.3453
1252	" " " Coal & Water Gas,	1281856	8360371	.4124	96422	27	.4277
1253	" " " Gas Purchased,	1281856	8360371	.4124	96422	27	.4277
1254	" " All Gas Manufacturing Dept.,						
1255	Output Cost Gas Lost and Unacctd For						
1256	" " " Used by Co.,						
1257	Total Deductions from Manufg Costs,						
1258	Net Cost in Holder of Gas Charged Stock Acct.,	1281856	7341056	.4093	86229	12	.4808
1259	Difference Stock on Hand First and Last of Mo.,		407	.0000	407		.0000
1260	Net Cost in Holder of Gas Sold,	1281856	7341463	.4093	86233	19	.4808

GAS ACCOUNT. CUBIC FEET

	This Year		Last Year		Increase		Decrease		Per Cent of Totals
1280	Gas on Hand First of Month,	1460	100						
1281	Coal Gas Made during Month,	69789	600						
1282	Water " " "	132930	600						
1283	Gas Purcd " "	202720	200						
1284	Total Gas Made and Purch'd,	404180	300						100%
1285	Gas on Hand at Close of Month,	203966	600						
1286	Gas Delivered to Mains,	179366	300						100%
1287	Gas Sold,	586700							
1288	Gas Used by Co.,	179953	000						
1289	Total Gas Sold and Used,	240/3	600						
1290	Gas unaccounted for,								
1291									

REPORT FOR

DISTRIBUTION DEPARTMENT EXPENSE

	Charge Plant		Charge Consumers		Charge Meters		TOTAL COST	
	Amount	Per M. Sold	Amount	Per Cons.	Amount	Per Meter	This Year	Last Year
1300 Street Main Maint'n'g,	1,147.28	.0064					1,147.28	
1301 Service			385.17	.0628			385.17	
1302 Street Dep't Expense,	265.83	.0015	531.65	.0868			797.48	
1310 Pumping Gas,								
1303 Meter Maintenance,					1,538.31	.2156	1,538.31	
1304 Meter Dep't Expense,					458.06	.0789	458.06	
1305 Setting & Rem. Meters			1,942.29	.2139	670.64	.1081	2,011.93	
1306 Gratuitous Work,			1,891.53	.3086			1,891.53	
1307 Total above Items,	1,413.11	.0099	4,149.64	.6771	2,467.55	.3976	8,030.30	
1308 Gas Lost & Unacct'd. for	947.75	.0555					947.75	
1309 Total Distrib'n Ex.	11,360.86	.0634	4,149.64	.6771	2,467.55	.3976	17,978.05	

METER ACCOUNT

	EQUITABLE		3	5	10	20	30	45	60	80	100	150	200	250	300	TOTAL
	NO.	NO.														
1320	Owned by Co. first of															
1321	Bought during Mo.,															
1322	Total,															
1323	Condemned & Dest'd.															
1324	Owned this Date,															
1325	Illuminating,															
1326	Domestic Fuel,															
1327	Industrial "															
1328	Power,															
1329	Sub-Meters,															
1330	Company,															
1331	Total,															
1332	Shop,															
1333	Locked,															
1334	Total,															
1335	Total Owned,															
1336	Increase or Decrease,															
1337	Meters in use first of Year,															

METERS

	PER MILE MAIN		PER 1000 POPUL'N		NO. SET		NO. REMOVED		Meters Tested "Regular Test"		No.	% of Total No.	Cost Each
	This Yr.	Last Yr.	This Yr.	Last Yr.	This Yr.	Last Yr.	This Yr.	Last Yr.	This Yr.	Last Yr.			
1340 Illuminating,													
1341 Domestic Fuel,													
1342 Industrial "													
1343 Power Gas,													
1344 Total Meters,	995		1919										
1345 No. Consumers,	995		1919										
1346 No. Service Pipes,	902		1917		3607		3451						
1350 Cost meter Maintenance per Meter passing through Shop,													
1351 " " " in Use,													
1352 No. Leaks at Connections,													
1353													
1354													
1356 Service Maintenance per Complete Service in Use,													
1357 " Repairs per Service handled													
1358 No. Services Repaired,													
1359 No. Services Renewed,													
1360 No. Services Changed,													
1361 No. Services Cleaned,													
1362 No. Leaks at services,													
1363 No. Leaks in Broken Mains,													
1364 No. Leaks Account Defective Main Joints,													
1365													
1366													
1367 Leakage per Mile Actual Main This Year	3852-13												
1368 " " 3-inch " "	354081												

Cu. ft.

Last Year,

Cu. ft.;

3852-13

"

"

"

"

"

"

"

"

REPORT FOR

COLLECTION DEPARTMENT

Charge Consumers	Charge Meters		Total Cost		Total per M. Sold	
	Amount	Per Con.	Amount	Per Meter	This Year	Last Year
1400 Reading Meters,	63473	.1036	31737	.0512	95210	.0063
1401 Collection Clerical Salaries,	357018	.5826	178507	.2878	535520	.0299
1402 Collection Office Expense,	51343	.0838	25671	.0414	77014	.0043
1403 Rent of Collection Office,	42295	.0690	21147	.034	63449	.0035
1404 Delivering Bills,	17626	.0288			17626	.0010
1405 Outside Collections,	70963	.1158			70963	.0039
1406 Total Collect'n Expenses,	600718	.9836	257062	.4145	854775	.0479

COLLECTION DEPARTMENT DATA

READING METERS

Total No.	FIRST READING			STRAGGLERS AND RETAKES		
	Total Hours	A. Time Each	No. Meters/Hr.	Cost Each	No.	Hours
1410 Meters,	66,832	2450.9	.0366	2727.0121	11983	4556.0121
1411 Meter Readers,						

CLERICAL SALARIES

Amount	Cost per Consumer	Cost per Meter	No. Clerks	Avg. Pay Each
1415 Total Acct No. 1401,	535520	866	8610	7.1
				7540

DELIVERING BILLS

No. Bills	Labor	Expense	Total Cost	Tot. per Bill
1420 By Mail,	979	1958	1958	.020
1421 By Co.'s Employees,	65727	17626	17626	.0026
1422 Called for at Office,	725			
1423 Totals,	67491	17626	19584	.0029

COLLECTIONS

No.	GAS BILLS		PER CENT. OF		COEF OF COLLECTION	
	Amount	Total No.	Total Amt.	Amount	Per Bill	Per Cent.
1425 Total Private Gas Bills, (Line 908 previous month)	71911919					
1426 At Office by Mail,	2918	14448	84	458	681	58550
1427 At Office by Tellers,	56610	179350	87	8902	84.08	727198
1428 Bills Deposited in Banks,	1952	890796	307	421	36197	1850
1429 Total at Office,	61479	202707	67	9667	9560	821945
1430 By Co.'s Salaried Collectors,	2113	933623	333	440	87830	1790
1431 By Co.'s Pay Stations,						
1432 By Express Co.'s,						
1433						
1434 Total Outside Collections,	2113	933623	333	440		1790
1435 Total Collections,	63592	21204450	100%	100%	859775	1852
1436 Balance Outstanding Close of Month,		707469				

ARREARS FOR CURRENT MONTH

Amount	Charged to Arrears Each Date	Collected During Mo. on Each Month's Arrears	Proportion Collections Reported	Total Collections on Each	Balance Outstanding & on Each at Close of Month	Amount of Each Considered Collectible
1441 Jan. 31, 190, Balance Arrears Dec. and prev.	751719	235442		235442	516277	
1442 Feb. 28, 190, Arrears for Jan'y,	188806	151266		151266	37546	
1443 March 31, 190, Arrears for Feb'y,	105178	80995		80995	24183	
1444 April 30, 190, Arrears for March,	86300	55980		55980	30320	
1445 May 31, 190, Arrears for April,	56911	54594		54594	2317	
1446 June 30, 190, Arrears for May,	105202	47547		47547	57655	
1447 July 31, 190, Arrears for June,	100400	83704		83704	16696	
1448 Aug. 31, 190, Arrears for July,	115761	84730		84730	31031	
1449 Sept. 30, 190, Arrears for Aug.	130664	99637		99637	31027	
1450 Oct. 31, 190, Arrears for Sept.,	125186	103249		103249	21937	
1451 Nov. 30, 190, Arrears for Oct.	130992	44103		44103	86889	
1452 Dec. 31, 190, Arrears for Nov.	210364				210364	
1453 Totals,	2107483	1041241		1041241	1066242	
1460						

1461
1462
1463
1464

REPORT FOR

EXECUTIVE DEPARTMENT. GENERAL EXPENSES

	PLANT	TOTALS		PER M. SOLD
		This Year	Last Year	This Yr. Last Yr.
1500 Executive Salaries	3 21552	3 21552		0179
1501 General Clerical Salaries	39480	39480		0082
1502 General Office Expense	47825	47825		0027
1503 Incidental Expense	1 72338	1 72338		0096
1504 Rent of Executive Offices	66404	66404		0037
1505 Legal Expenses	2 16031	2 16031		0120
1506 Total Above Items	8 63630	8 63630		0431
1507 Promoting New Business	13 39404	13 39404		0747
1508 Taxes	7 08504	7 08504		0395
1509 Total General Expenses	29 11538	29 11538		1623

ANALYSIS OF SPECIAL EXPENSE ACCOUNTS NOS. 1819, 1820, 1821, 1822. NEW BUSINESS

	Domestic Fuel		Illuminating		Industrial Fuel		Power		Totals	
	Total	Per Consumer	Total	Per Consumer	Total	Per Consumer	Total	Per Consumer	Amounts	Per Consumer
1520 a. Advertis'g, Newspaper, etc.									426785	6965
1521 b. Circulars and Distr'n									1371	0022
1522 c. Bonuses and Commissions									700	0011
1523 d. Exhibition Expenses									52131	0851
1524 e. Salaries, Wages and Expenses									352293	593
1525 Totals									832280	13580
1526 Cost of Appliances sold									2435090	39735
1527 Appliance Expense									402276	6562
1528 Total cost Appliances									2837366	4630
1529 Received for Appliances									2898404	47297
1530 f. Loss on Appliances										
1531 f. Profit on Appliances										
1532 Piping									61038	0997
1533 and									246706	6963
1534 Con-									254384	4151
1535 nce-									131387	2141
1536 tions									812477	1325
1537 g.									248325	397
Total cost items a to g									569152	923
									1340394	211871

APPLIANCES INTRODUCED AND CONNECTED

DOMESTIC FUEL				ILLUMINATING			
Class	No.	No. Cons.	Per Unit Items	Class	No.	No. Cons.	Per Unit Items
1550 Ranges (new)	595		Feet Pipe per App'l	Houses piped by Co.			Avg. rooms per house
1551 " (old)	1221		Cost Pipe & Fit'gs per Ap.	Houses piped by contract			Cost Pipe & Fit'gs per House
1552 Hot Plates	362		Cost Labor connecting Ap.	Gas Arcs			Cost Labor per house
1553 Water Heaters	104		Total Cost connecting Ap.	Misc.			Cost Labor and Labor per House
1554 Heaters and Grates	45		Total Cost connecting per foot pipe				Cost Pipe & Labor per foot Pipe
1555 Misch.	60		PIPE FEET				
1556			27.0%				
1557							
INDUSTRIAL FUEL				POWER			
Class	No.	No. Cons.	Per Unit Items	Class	No.	No. Cons.	Per Unit Items
1560 Feet Pipe per App'l				Below 5 H. P.			Feet Pipe per Engine
1561 Cost Pipe & Fit'gs per Ap.				5 to 9 H. P.			Cost Pipe & Fit'gs per Engine
1562 Total Cost connecting Ap.				10 to 14 H. P.			Cost Labor on connecting per Engine
1563 Cost Labor connecting Ap.				15 to 24 H. P.			Total Connection per Engine
1564 Total Cost connecting per foot pipe				25 to 39 H. P.			Total Connection per foot pipe
1565				50 H. P. & Upwards			9
1566							
1567							
1570							
1571							
1572							
1573							
1574							

REPORT FOR

DETAILS OF GAS SALES

	Rate	THIS YEAR		LAST YEAR		Inc. or Dec. Cu. Ft.	% Inc. or Dec.
		Cu. Ft.	Amount	Cu. Ft.	Amount		
1600							
1601	Illuminating Gas						
1602							
1603							
1604	Gross Sales Less Rebates and Allowances Net Sales						
1605							
1606							
1607							
1608	Domestic Fuel Gas						
1609							
1610							
1611	Gross Sales Less Rebates and Allowances Net Sales						
1612							
1613							
1614	Industrial Fuel Gas						
1615							
1616							
1617	Gross Sales Less Rebates and Allowances Net Sales						
1618							
1619							
1620	Gross Sales Less Rebates and Allowances Net Sales						
1621							
1622							
1623	Gross Sales Less Rebates and Allowances Net Sales						
1624							
1625							
1626	Gas for Power						
1627							
1628							
1629	Gross Sales Less Rebates and Allowances Net Sales						
1630							
1631							
1632	Total Sales	179	366.300	214	516.57		

STREET LAMPS

	No. of Lamps	GROSS EARNINGS		Amount	Amount per Lamp	Hours Burning per Hr.	Gas Total Gas Cons.
		Open Flame Burners	per year				
1633	do	@	"				
1634		@	"				
1635		@	"				
1636	Incandescent Burners	@	"				
1637		@	"				
1638		@	"				
1639	do	@	"				
1640		@	"				
	Totals						

EXPENSES

		Remarks
1641	Lighting and Extinguishing	
1642	Repairing	
1643	Cleaning	
1644	Thawing	
1645	Rental	
1646	Inspecting and Testing	
1647		
1648		
1649		
1650		
1651		
1652		
1653		
1654	Net Earnings	
	Total Expense	
		per M. ft. Gas

REPORT FOR

GAS USED BY COMPANY

WHERE USED	Cu. Ft.	Charged to Acct. No.	Rate	Amount	REMARKS
<i>Bus Garage</i>	13 250	1815	4815	370	
<i>Elect. Power</i>	19 350	3008		659	
<i>Motor Shop</i>	52 800	13048		2244	
<i>Office</i>	284 600	1840		117 85	
<i>Administration</i>	127 600	18192		5475	
<i>Bus Hall</i>	4500	18192		203	
<i>Motor Garage</i>	24 600	1804		1026	
<i>Bus - Elect. Shop</i>	60 000	1863		2780	
Totals	586 700		4815	24540	

COKE USED BY COMPANY

WHERE USED	Weight	Charged to Acct. No.	Rate	Amount	REMARKS
Bench Fuel	498.49	1002	5.2990	2641.59	
Boiler Fuel	496.40	3000A	1.7481	868.71	
Pintsch Bench Fuel		2401			
Generator Fuel	2698.18	1101	5.3790	14511.19	
Street Department		1300			
Meter Shop		1304b			
<i>Boiler Fuel</i>	87.	1002	1.6728	1454.0	
<i>Qty for 1836 acct</i>				588.08	
Totals	3780.07		49625	18755.02	

COAL USED BY COMPANY

Tons	Cost	WHERE USED	Acct. No.	Tons	Cost
7864.63	45808.39	Coal Carbonized	1000	7083.90	42021.16
		Boiler Fuel	3008	19767	1171.34
		Bench Fuel	1002	52456	249539
		Street Department	1300	18.50	1205.0
		<i>Solar</i>			
Total	7864.63		Total	7864.63	15805.39

TAR SOLD AND USED

Gallons	Cost	WHERE USED	Acct. No.	Gallons	Cost
114728	1315.43	Sold		21 175	1404.44
		Used in Pitch Plant			
		Used for Gas Making			
		<i>Boiler Fuel</i>			
Total	114728		Total	93553	1400.99
				114728	3315.43

OIL USED BY COMPANY

Gallons	Cost	WHERE USED	Acct. No.	Gallons	Cost
		Enricher	1102		
		Pintsch	2400		
Used during Month (2376)					
Total			Total		

REPORT FOR

CLERICAL SALARIES DATA

	WHERE EMPLOYED	No. Clerks	Total Salaries	CHARGED TO		Amount
2078	Gas Works	1	12098	1816	Works Supervision	
2079	Street Department			1302f	Street Dept Expense	
2080	Meter Department			1304a	Meter "	
2081	Collection Office	7	567342	1401	Collection Clerical Sal.	
2082	General Office	1	38719	1501	General Office "	
2083	Purchasing Department	2	68519	1804a	Purchasing Dept	
2084	Appliance Department	1	69000	1804b	Storeroom Expense	
2085	New Bus. Department	1	57000	1801b	Coke Expense	
2086				1802a	Tar Expense	
2087				1507	Prom. New Business	
2088					Appliance Dept	
2089						
2090						
2091						
2092	Total	8	12678	Total		

REPAIR AND MAINTENANCE ACCOUNT

		THIS YEAR			LAST YEAR	
		Labor	Material	TOTAL	Per M. Mtd.	TOTAL
2093	Coal Shed and Apparatus	(1800c)				
2094	Coke Yard	(1801d)				
2095	Tar Dept	(1802b)	500	1509	10001	
2096	Ammonia	(1803b)	5779	19910	10010	
2097	Drawing and Charging Machinery,	(1010b)				
2098	Retort House Conveyors	(1010c)				
2099	Bench Renewals	(1011b)	381348	381348	10188	
2100	Miscellaneous Bench Repairs,	(1011a)	12124	20776	10010	
2101	Water Gas Generating Apparatus,	(1107)	57085	93564	10046	
2102	Boiler Repairs	(1809d)				
2103	General Works Repairs, Building	{ 1013 { 1017 { 1018 { 1014 { 1214	72876	89993	10045	
2104	" " Apparatus		124973	180799	10089	
2105						
2106						
2107	Total Mfg. Dept.		654085	787999	10387	
2108	Mains	(1300)				
2109	Services	(1301)	14180	114566	10064	
2110	Meters	(1303)	13958	38391	10021	
2111	Lamps	(1818)	31916	134760	10075	
2112	Total Dist'n and Lamp Dept		60054	287717	10160	
2113	Total All Dep'ts.		714139	10975716	10600	

PAY ROLL DATA

MONTH OF

	COLLECTION EXPENSE	Acct. No.	Total Wages		Per M. Sold		SPECIAL EXPENSE ACCOUNTS	Acct. No.	Total Wages				CONSTRUCTION		Total Wages		Per M.	
			This Year	Last Year	This Yr.	Last Yr.			This Year	Last Year	This Yr.	Last Yr.			This Year	Last Year	This Yr.	Last Yr.
2038	Reading Meters		883 83				Tar Stock Exp.		365 73			Per Gall.	Gas Works	300	9098			
2039	a First Reading	1400a					a Distilling	1802a					Mains	301	181672			
2040	b Retakes	1400a					b Tar Plant Rep.	1802b					Services	302	449774			
2041	Clerical Salaries	1401	524465				Ammonia Stock Exp.					Per Lib.	Meters	303				
2042	Addressing Machine	1402c	34725				a Concentrating etc.	1803a					Street Lamps	304				
2043	Del. Receipted Bills	1402e					b Apparatus Rep.	1803b					Tar Plant	306				
2044	Delivering Bills	1404	15309				Purchasing Dept.		337 82			Per M. Mfg.	Pintsch Plant	309				
2045	Outside Collection	1405	70351				a Pur. Agt. & Clerks	1804a										
2046							b Handling Stock	1804b										
2047	Total		733233				Barn Expense	1805	687 42									
2048							Prelimin. Exp. New W'k	1806										
2049	Gen'l Exp.						Steam											
2050	Executive Salaries	1500	185209				a Firemen-Helpers	1809c										
2051	Clerical Salaries	1501	39480				b Hauling Ashes	1809c										
2052	Legal Expense	1505					c Sundry Labor	1809c										
2053	Total		224689				d Haul'g Coal to Boilers	1809a										
2054							e Boiler Repairs	1809d										
2055	Stock Accounts						f Boiler Changes	1809c										
2056	Making New Oxide	505	12425				Rent-Janitors, etc.	1810	480 25									
2057	Main Stock	506	4464				Gen'l Works Bldg. Rep.	1812c	96 21									
2058	Steel Pipe Stock	507	1100				" App. Repairs	1813c	440 27									
2059	Fittings	508					Sundry Labor	1814	2400 16									
2060	Service	509					Bench Repairs	1811	640 08									
2061	Appliance	512					Works Expense	1815										
2062	Miscellaneous	513					General Supervision		3035 70									
2063		501	226				a Chemist	1816a										
2064	Total		18215				b Clerical Salaries	1816b										
2065							c Gen'l Supervision	1816c										
2066	Coal Stock Exp.		266845			Per Ton	Dist. Holder Sta.	1817										
2067	Unloading Coal	1800a					New Bus. Expense	1819	9042 63			Per M. Sold						
2068	Weighing Coal	1800a					a Advertising Men	1820	396 86									
2069	Piling-Trimming-Shed	1800a					b Demonstrator-Ass'ts	1821	2709									
2070	Rep. Shed-Conveyors	1800c					c Solicitors											
2071	Coke Stock Exp.		222163				d Clerks											
2072	Coke Buggy	1801a					e App'l Connections											
2073	Work on Pile	1801a						1846	429 76									
2074	Hauling Ret. to Yard	1801b						1850	616 97									
2075	Marketing	1801b							210 66									
2076	Rep. Apparatus	1801d																
2077	Forward		489008				Total		2409569				Total		5927088			

PAY ROLL DATA

MONTH OF

	MANUFACTURING EXPENSES	Acct. No.	Total Wages		Per M. Mfg.		PURCHASED GAS	Acct. No.	Total Wages		Per M. Mfg.		DISTRIBUTION	Acct. No.	Total Wages		Per M. Sold	
			This Year	Last Year	This Yr.	Last Yr.			This Year	Last Year	This Yr.	Last Yr.			This Year	Last Year	This Yr.	Last Yr.
2000.	Coal Buggy	1000b	50138				Power for Pumping	1201					Street Main Maint.		92459			
2001	Retort House Labor		589369				Purifying Labor	1211					a Test and Rep. Leaks	1300a				
2002	a Foreman	1010a					Gen'l Bldg. Repairs	1213					b Rep. or Replacing	1300a				
2003	b Stoking	1010a					Gen'l App. "	1214					c Maint. Governors	1300g				
2004	c Furnace men	1010a					Sundry Labor	1215					Service Maintenance		26076			
2005	d Doctor	1010a					Gen'l Supervision	1217					a Thawing Services	1301a				
2006	e Scurffing Retorts	1010a					Total						b Cleaning	1301c				
2007	f Cleaning Flues	1010a											c Rep. or Renewing	1301d				
2008	g Hydraulic Main Men	1010a					Pintsch Gas						d Changing or Extend.	1301f				
2009	h Wheeling Retort ashes	1010a					Retort House Labor	2408					Street Dept. Exp.		44566			
2010	Bench Repairs	1011a	8491				Bench Repairs	2409					a Rep. St. Dept. Tools	1302a				
2011	Retort House Expense	1012	2112				Retort House Exp.	2410					b Pumping Drips	1302c				
2012	Purifying Coal Gas	1015a	29891				Purifying Labor	2412					c Taking St. Pressure	1302e				
2013	Gen'l Bldg. Repairs	1017a	20719				Gen'l Bldg. Repairs	2413					d Gen'l Supervision	1302f				
2014	Gen'l Apparatus Rep.	1018a	26385				Sundry Labor	2414					Meter Maintenance		102846			
2015	Sundry Labor	1019a	43318				Car Fillers	2420					a Rep. Old Meters	1303a				
2016	Experimenting C. G.	1020					Pipe Line Repairs	2421					b Test " "	1303c				
2017	Gen'l Supervision	1021											c Rep. Old Connections	1303d				
2018	<i>Sundry Exp.</i>	1002	4495				Total						d Making New "	1303g				
2019			9037										e Shop Foremen	1303h				
2020	Total		783945										f Changing Meters	1303i				
2021	Mfg. Exp. W. Gas						Summary Mfg.						g Governor Expense	1303k				
2022	Unloading Oil Cars	1102											Meter Dept. Exp.		10434			
2023	Gas Making Labor	1106	370057				Coal Gas	2020					a Meter Clerks	1304a				
2024	a Making Gas	1106					Water Gas	2057					b Foremen	1304a				
2025	b Charging W. G.	1106					Purchased Gas	2007					c Rep. Shop Tools	1304c				
2026	c Clinkering W. G.	1106					Pintsch Gas	2020					Setting Meters	1305a	210213			
2027	Rep. App. up to Seal	1107a	52781										Removing Meters	1305b				
2028	W. G. Gen. House Exp.	1108a	203										S. & R. Supervision	1305c				
2029	Purifying W. G.	1111	2010										Gratuitous Work		144399			
2030	Rep. Buildings	1113	650										a Gen'l Complaints	1306a				
2031	Rep. App. beyond Seal	1114a	518										b Rep. Cons. Property	1306c				
2032	Sundry Labor	1115	50063										c Investigating etc.	1306f				
2033	Experimenting W. G.	1117											d Inspecting	1306f				
2034	Gen'l Supervision	1117													21207			
2035															3406			
2036																		
2037	Total		486282				Total						Total		660606			
	GRAND TOTAL		1240227															

STEAM ACCOUNT No. 1809

BARN		EXPENSE ACCOUNT No. 1805				(Horses)
		Total	Per Horse	Charged to		
1925	a Wages,	919 99		1305 00	176 34	
1926	Rent,	159 83		1305 00	176 34	
1927	Hay,	505 36		1806	173 34	
1928	Oats,	646 00		3200	348 68	
1929	Oil Meal and Bran,					
1930	Bedding,	29 51		3204 00	173 34	
1931	Fuel, Light and Water,	76 62		3265	139 47	
1932	Med. Attendance and Medicines,	19 65		3271	34 87	
1933	Barn Repairs,	39 27		3272	173 34	
1934	Horse Shoeing,	208 55		3008	67 74	
1935	Insurance on Horses,	173 20		301	104 60	
1936	Board for Horses,	368 15		302	173 34	
1936a	Total, (a)	3002 25		351	209 21	
1937	b Harness Repairs,	125 66		1801 00	348 68	
1938	Wagon Repairs,	224 94		1807	34 87	
1939	Insurance on Wagons and Harness,			78 19 3	524 06	
1940		186 00		323 15	383 55	
1941				1815	69 74	
1942	Total, (b)	484 60		1820 8	173 34	
1943	Total Barn Expense,	8486 85			3486 85	

Year	Received from	For	Amount	Charged to	Amount
1950	Rent paid for Office,		1480 00		
1951	<i>Proprietor's</i>		480 00		
1952	for Meter Shop,				
1953	<i>Rem. Hall</i>		420 00		
1954	" for Barn,				
1955	<i>Janitor</i>		480 00		
1956	Rental Credited Rents Receivable,				
1957	For <i>Max</i>		813 52		
1958	For				
1959					
1960	Total,		3173 52		

REPORT FOR

SPECIAL EXPENSE ACCOUNTS

No.	ACCOUNT	Total Expense	CHARGED TO		Bal. Special Accounts Close Month
			No.	Account	
1800	Coal Stock Expense	2 400 84	500	Coal Stock,	2 400 84
1801	Coke Stock Expense.	2 909 13	502	Coke Stock,	2 909 13
1802	Tar Stock Expense,	617 89	503	Tar Stock,	617 89
1803	Ammonia Stock Expense,		504	Ammonia Stock,	
1804	Pur. Dept. and St. Room,	2 757 42			
1805	Barn Expense,	3 409 93			
1806	Preliminary Expense,				
1807	Lamps Discontinued,		1815b	St. Lamp, Mine,	
1808	Mains Abandoned,		1300	St. Main Mine,	
1809	Steam,	7 911 34			
1810	Rent,	3 173 52	1300b	Meier Dept. Exp.,	
			1403	Coll. O. Rent,	
			1504	Exc. O. Rent,	
			1805	Barn Exp.,	
1811	Contingent Bench Repairs,		1011	Bench Repairs,	
1812	Gen. Wks Bldgs. Repairs,	3 051 19	1017	Bldgs. Rep. C.G.	111 88
1813	General Apparatus Repairs,	1 471 20	1113	" " W.G.	173 31
			1213	" " P.G.	509 17
			1018	App. Rep. C.G.	962 03
			1114	" " W.G.	
			1214	" " P.G.	
1814	Supply Labor,	2 635 98	1019	Sund. Lab. C.G.	870 38
			1115	" " W.G.	1 765 65
			1215	" " P.G.	
1815	Works Expense and Supplies,	2 540 72	1020	Wks. Exp. & Sup. C.G.	878 50
			1116	" " W.G.	1 662 22
			1216	" " P.G.	
1816	General Supervision,	3 137 19	1021	Gen. Sup. C.G.	1 052 67
			1117	" " W.G.	2 084 52
			1217	" " P.G.	
1817	Dist. Holder Station,		1022	Dis. H. Sta. C.G.	
			1118	" " W.G.	
			1218	" " P.G.	
1819	Domestic Fuel App'cs,	1 469 16	1507	Prom. N. Bus,	13 394 04
			308	Const.,	
1820	M'g Pipes and Fixtures,	1 349 09	1507	Prom. N. Bus,	
			309	Const.,	
1821	Industrial Gas App'cs,	40 97	1507	Prom. N. Bus,	
			310	Const.,	
1822	Gas Engines and Piping,		1507	Prom. N. Bus,	
			311	Const.,	
1823	Taxes Accrued,	10 627 56	1508	Taxes, Bus	708 04
				Black	354 52
- 1824	Interest Accrued,	61 700 87	209	Interest,	61 700 87
1825	Bad Debts,	3 562 75	909	Bad Debts, Bus	2 475 00
				Black	1 087 25
1850	Carrying Material	1 131 95			361 77
					770 18
1840	Office Office Expenses	553 09	1407A		193 72
			1507A		55 35
			3214		138 37
			3226		55 35
			1519 H		55 35
			3231 H		55 35
Totals					379

See details next page

See details next page

REPORT FOR

SERVICE PIPES LAID

	No. Laid This Month	No. Previously Rep'd this Yr.	Total This Year	No. in Use First of Year	Total No.	No. Disc. This Year	No. in Use This Date
1745	383		383	4479	4862		4862
1746	159		159	610	769		769
1747	27		27	253	280		280
1748	529		529	5342	5911		5911
1749	35		35	116	151	21	130
1750	604		604	5458	6062	21	6041

COST OF SERVICES

	Gross Cost	Charged Consumers	Net Cost	GROSS COST		NET COST	
				Per Service	Per Foot	Per Service	Per Foot
1751	3908 27						
1752	4155 33						
1753	8063 60	1941 35	5122 25	13 44	188	8 55	188
1754							
1755	8063 60	1941 35	5122 25	13 44	188	8 55	188
1756	7657 65	490 75	8037 50	14 02	187	13 06	117
THIS MONTH							
1757	Pipe used for complete services, feet.						
1758	" " " service extensions, feet.						
1759	" " " total complete services, feet.						
1760	" " " services to curb, feet.						
1761	Total, feet.						

APPLIANCES

	DOMESTIC FUEL APPLIANCES					IND. APPLIANCES		GAS ENGINES	
	Ranges	Hot Pl.	W. H.	Heaters and Grates	Miscels.	Total	No.	No.	H. P.
1762	5775	428	762	134	155	6654			
1763	1816	362	104	35	81	2398			
1764	6991	790	866	164	236	9052			
1765	533	20	2		2	557			
1766	6458	770	864	169	234	8495			
1767	5175	428	762	134	155	6654			
1768	1283	342	102	35	79	1841			

STREET LAMPS

	No. Installed This Month	No. Previously Rep'd this Yr.	Total This Year	No. in Use First of Yr.	Total No.	No. Disc. This Year	No. in Use This Date
1769							
1770							
1771							
1772							
1773	Total,						

PLANT DATA

	MAXIMUM CAPACITY		Max. Make 24 hrs. This Mo.	% of Make to Cap. 24 hrs.	Max. Make 24 hrs. To Date	% of Make to Cap. 24 hrs.	Least Reserve Capacity
	24 hrs.	1 hr.					
1775	Coal Gas Benches,						
1776	Water Gas Machines,						
1777	Total,						
1778							
1779							
1780							
1781							
1782	Storage Capacity						
1783	Max. Send out 24 hrs.						
1784	" " 1 hr.						
1785	% Storage to send out 24 hrs.						
1786	" " " 1 hr.						
1787	" " " 24 hr. capacity						
1788							

Purifying Capacity Cu. Ft.						
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Purifying Capacity Cu. Ft.

REPORT FOR

LOW PRESSURE STREET MAINS (FEET)

Size Inches	In Use First of Year	Laid This Month	Prev. Report This Year	Total This Year	Total To Date	Abandoned During Mo.	Taken Up During Mo.	Total Previous Deductions	Total Deductions To Date	In Use Close This Mo
1700 2	205 302			15 403	220 705					220 705
1701 3										
1702 4	83 518				83 518					83 518
1703 6	13 799				13 799					13 799
1704 8	4 822				4 822					4 822
1705 10	9 100				9 100					9 100
1706 12	3 950				3 950					3 950
1707 16	1 300				1 300					1 300
1708 20	1 400				1 400					1 400
1709 24										
1710 30										
1711 36										
1712 Totals, ^{FEET}	323 191			15 403	338 594					338 594
1713 Miles,	61 200			2 900	64 1					64 100
1713a Miles on 3-inch Basis										

BOOSTER MAINS

Size Inches	In Use First of Year	Laid This Month	Prev. Report This Year	Total This Year	Total To Date	Abandoned During Mo.	Taken Up During Mo.	Total Previous Deductions	Total Deductions To Date	In Use Close This Mo
1714										
1715										
1716										
1717										
1718										
1719 Totals,										

PUMPING MAINS

Size Inches	In Use First of Year	Laid This Month	Prev. Report This Year	Total This Year	Total To Date	Abandoned During Mo.	Taken Up During Mo.	Total Deductions	In Use Close This Mo
1720									
1721									
1722									
1723									
1724									
1725 Totals,									

COST OF STREET MAINS. (ALL KINDS)

COST MAINS LAID THIS MONTH					COST MAINS LAID THIS YEAR				
AMOUNT					AMOUNT				
Size	Labor	Material	Total	Per Foot	Size	Labor	Material	Total	Per Foot
1726 2					1726 2	1557 00	1718 81	3275 81	101.111 .21
1727 3					1727 3				
1728 4					1728 4				
1729 6					1729 6				
1730 8					1730 8				
1731 10					1731 10				
1732 12					1732 12				
1733 16					1733 16				
1734 20					1734 20				
1735 24					1735 24				
1736 30					1736 30				
1737 36					1737 36				
1738 Totals,					1738 Totals,	1557 00	1718 81	3275 81	101.111 .21
THIS MONTH					THIS YEAR				
1739 Cost Low Pressure Mains laid	\$				1739 Cost Low Pressure Mains laid	\$	23 275.81		2.900
1740 " Booster	\$				1740 " Booster	\$			
1741 " Pumping	\$				1741 " Pumping	\$			
1742 Total cost Mains laid	\$				1742 Total cost Mains laid	\$	23 275.81		
1743 Deduct value of Mains taken up	\$				1743 Deduct value of Mains taken up	\$			
1744 Net cost of Mains	\$				1744 Net cost of Mains	\$	23 275.81		2.900

REPORT FOR

COAL STOCK

BITUMINOUS GAS COAL				STEAM COAL			
Tons	Cost	Per Ton	Tons	Cost	Per Ton	Tons	Per Ton
2300 First of Month	181 27	1569 58	86581				
2301 Rec'd during Mo.	9190 35	50525 69	5498				
2302 Coal Stock Exp.	2400 84						
2303 Total Cost	9371 62	54496 11	5814				
2304 Used during Mo.	7879 73	45803 39	5814				
2305 Close of Mo.	1491 89	8687 72	5824				
2307 Coal Stock Expense			(1800a)				
2308 do			(1800b)				
2309 do			(1800c)				
2310							
2311							
2312 Total Expense			(to line 2302)				

COKE STOCK

COKE STOCK				Total Tons	Total Cost	Av. per Ton
2320 Stock first of month	12	Coke 586.29	Tons	825 65	8 149 78	9 870
2321 Received or made during month		Coke 4117.96	Tons	4541 27	17 580 92	3 872
2322 Coke Expense as below				2 902 13		
2323 Total Cost				5366 92	28 692 83	5 334
2324 Used during month		Coke 3196.67	Tons	3780 07	18 755 02	4 961
2325 Sold during month		Coke 868.15	Tons	911 00	6 492 77	7 127
2326 Total Sold and Used		Coke 4064.82	Tons	4491 07	25 247 79	5 383
2327 Stock close of month	12	Coke 639.43	Tons	675 85	3 385 04	5 009
2328 Coke Stock Expense			(1801a)			
2329 do			(1801b)			
2330 do			(1801c)			
2331 do			(1801d)			
2332 do						
2333 Total Expense			(to line 2322)			

TAR STOCK

COAL GAS TAR				WATER GAS TAR			
Gallons	Cost	Per Gal.	Gallons	Cost	Per Gal.	Gallons	Per Gal.
2340 Stock first of month			103 700	3 271 95	10 316		
2341 Made and bought during month			108 263	12 71 47			
2342 Tar Expense as below				6 17 89			
2343 Total Cost			211 963	5 161 31			
2344 Sold and used during month			114 728	3 297 99	10 287		
2345 Stock close of month			97 235	1 863 32	19 16		
2347 Tar Stock Expense			(1802a)				
2348 do			(1802b)				
2349 do			(1802c)				
2350							
2351							
2352 Total Expense			(to line 2342)				

AMMONIA STOCK

AMMONIA STOCK				Pounds	Cost	Per Lb.
2360 Stock first of month						
2361 Made during month						
2362 Ammonia Expense as below						
2363 Total Cost						
2364 Sold during month						
2365 Stock close of month						
2367 Ammonia Expense			(1803a)			
2368 do			(1803b)			
2369 do			(1803c)			
2370 Total Expense			(to line 2362)			

379 N

REPORT FOR

OIL STOCK

		GAS OIL.			PINTSCH OIL.		
		Gallons	Cost	Per Gal.	Gallons	Cost	Per Gal.
2372	Stock first of month						
2373	Received during month						
2374	Oil Expense						
2375	Total Cost						
2376	Used during month						
2377	Stock close of month						

380

Ex. 100—M. E. W.

1902

2" 46995 ft.

4" 12394 "

6" 3759 "

63148

822 services.

1903

2" 23558 ft.

4" 1237 "

24795

691 services—56025 ft.

1904

2" 7055 ft.

4" 2005 "

6" 1094 "

8" 938 "

11092 "

576 services—48110 ft.

77 cub services 1676 ft.

1905

2" 16787 ft.

4" 8514 "

8" 2734 "

28035

610 services—45171 ft.

5 curb services 201 ft.

381

Ex. 100. M. E. W.

Ex. 100. M. E. W. 2d Page.

	1906
2"	20126 ft.
4"	1909 "
6"	1605 "
	<hr/>
	23640

554 services—40528 ft.

34 curb services 665 ft.

	1907
2"	15403 ft.
	569 services 42822 ft.
	35 curb services 699 ft.

382

Ex. 102.

Gas Ordinance #22.

An Ordinance Defining Duties of Gas Companies, Fixing Maximum Rates for Gas Meters, Rules Regulating Supply, Use of, and Payment for Gas, Penalties for Violation thereof, and Repealing all Ordinances in Conflict Therewith.

SECTION 1.—Rates. It will be unlawful for any one furnishing illuminating or fuel gas to charge customers more than one dollar ninety-two and one-half cents per thousand cubic feet for illuminating gas, or one dollar and fifty cents for gas used as fuel after October 1st, 1899. Annually thereafter gas used for lights shall be reduced seven and one half cents per thousand until October 1st, 1905, after which not more than one dollar and fifty cents shall be charged for gas used for either purpose. A meter rent of twenty-five cents per month may be charged if less than three hundred feet per month are consumed, but not otherwise.

SECTION 2.—Duty to furnish. Any person furnishing gas shall supply it to any property owner or occupant requesting service who has properly fitted his premises therefor, and paid or tendered the actual cost of extending service from point of location of meter to the curblin of any street wherein the supply man has gas mains. Service may be denied to consumers in default till payment for past service is made and to persons not responsible till deposit of sufficient sum to pay one and one-half month's estimated service is made to pay such service, and is from month to month kept good.

SECTION 3.—Same. Service may be denied if permission to inspect service or interior pipes or fixtures is refused, or if on inspection they are found defective. If service is denied for such alleged

cause, the council may on the request of the person aggrieved, cause inspection by any competent person, the expense whereof shall be paid by the supply man refusing, if the alleged defect does not exist.

SECTION 4.—Discount. Gas dues paid at the Company's office at or before six o'clock afternoon of the sixth day after any month's service, shall be allowed the customary ten per cent discount from the fixed or current rates.

SECTION 5.—Penalty. Any person or executive officer, president or manager of any corporation refusing to comply with this ordinance, or to furnish gas to any person entitled thereto, shall be guilty of a misdemeanor, and on conviction thereof be fined 383 in any sum not less than ten dollars nor more than one hundred dollars, and each twenty-four hours' refusal shall be a new offense.

SECTION 6.—Repeal. An ordinance entitled: "An ordinance defining the duties of Gas Companies and prescribing the maximum rates to be charged and paid for gas and gas meters and the rules regulating the supply and use of gas, prescribing penalties for violation of this ordinance and repealing section 928 A of the Revised Ordinances of the City of Lincoln and all Ordinances in conflict herewith," so far as in conflict with this ordinance, and all ordinances in conflict herewith, are hereby repealed, and this ordinance shall be in force from and after its approval and publication according to law.

Passed October 9th, 1899.

384 STATE OF NEBRASKA,
Lancaster County, ss:

I, Thos. H. Pratt, City Clerk, of the City of Lincoln, County and State aforesaid, do hereby certify that the foregoing is a true and correct copy of Ordinance No. 22, known as the Gas Ordinance, passed October 9, 1899 and approved October 14, 1899.

Witness my hand and Official seal this 6th day of May, 1908.

[OFFICIAL SEAL.] (Signed) THOS. H. PRATT,
City Clerk.

Ex. 102. M. E. W.

384½ STATE OF NEBRASKA,
Lancaster County, ss:

I, Thos. H. Pratt, City Clerk, of the City of Lincoln, County and State aforesaid, do hereby certify that the foregoing is a true and correct copy of Gas Ordinance No. 363, introduced by John S. Bishop, passed April 9, 1906, and approved April 16, 1906.

Witness my hand and Official seal this 6th day of May, 1908.

[OFFICIAL SEAL.] (Signed) THOS. H. PRATT,
City Clerk.

Ex. 103. M. E. W.

Gas Ordinance.

Ordinance No. 363.

An ordinance establishing a unit of measure and a standard for manufactured gas, regulating the quality, purity, pressure, supply and use of gas; defining the duties of gas companies; creating the office of gas inspector and defining his duties; providing for a reduction in the price to be paid for gas not meeting the required standard established herein; establishing penalties for the violation of the provisions hereof, and repealing all ordinances in conflict herewith.

Be it ordained by the mayor and council of the City of Lincoln:
SECTION 1. Unit of Measure. The unit of measure for the sale by meter of manufactured gas used for illuminating or heating purposes, shall be the cubic foot of sixty-two and 321-1000 pounds avoirdupois weight of distilled rain water, weighed in air of the temperature of 62 degrees Fahrenheit scale, the barometer being at 30 inches.

SEC. 2. Standard. All gas manufactured and sold in the City of Lincoln for illuminating or heating purposes shall be of the following standard: It shall have an illuminating power of not less than 18 English sperm candles when burned from a Suggs London argand burner No. 1, at the rate of five cubic feet per hour. It shall contain not less than 625 British thermal units per cubic foot, at a pressure of 14.7 pounds per square inch and a temperature of 60 degrees Fahrenheit scale. It shall have sufficient odor to be readily detected by its smell. It shall contain not to exceed 20 grains of sulphur per one hundred cubic feet. It shall contain not to exceed 10 grains of ammonia per one hundred cubic feet, and shall contain no sulphurated hydrogen. It shall have a pressure of not less than one and one-half inches nor more than five inches measured in a water gauge at the place where tested as herein provided.

SEC. 3. Testing Room. The city council shall provide a suitable room in the city hall or elsewhere to be used as a testing room by the gas inspector, and shall install and maintain therein all necessary apparatus, chemicals, supplies, books and records for testing and recording the pressure, quality, purity and illuminating and heating power of the gas supplied by any gas company to consumers in the City of Lincoln, and also all necessary apparatus, supplies, and records for testing, sealing and recording the accuracy of meters supplied and used by any gas company in said city. Said testing room shall be equipped with a Junker's calorimeter, or a calorimeter of standard make approved by the gas inspector; a bar photometer, or a photometer of a construction approved by the gas inspector, a self registering pressure gauge and all necessary apparatus, chemicals and supplies for making tests for the presence of sulphur, ammonia

and sulphureted hydrogen, and a machine of standard make approved by the gas inspector for testing meters, with necessary materials and apparatus for marking and numbering each meter tested with the result of the test and its date, together with all necessary books and records for recording the results of all tests and keeping a permanent record thereof.

Sec. 4. Gas Inspector. The water commissioner is hereby made ex-officio gas inspector with authority to authorize the assistant superintendent of lighting plant, or any other competent person in his department, to act as assistant gas inspector.

Sec. 5. Duties of Gas Inspector. It shall be the duty of the gas inspector to inspect, test and determine the pressure, quality, purity, heating and illuminating power of the gas manufactured and furnished to consumers for illuminating and heating purposes by any gas company in the City of Lincoln, once each day and report in writing to the city council the result of said tests as to the pressure, quality, purity, heating and illuminating power. It shall be the duty of the gas inspector upon the written demand of any gas consumer and the payment of a fee of one dollar, together with the location of the meter he desires to have tested to at once notify in writing the gas company owning said meter that a complaint has been filed and the time when he will send after such meter, whereupon the gas company shall, in the presence of the gas inspector or assistant disconnect said meter, replacing it with another meter and deliver the old meter to the gas inspector to be tested by him, and if said meter shall be found to be correct, according to the standard hereinafter fixed, the one dollar paid by the gas consumer shall remain the property of the city. But if the meter is found to register more gas than consumed, within the standard hereinafter fixed, the fee of one dollar shall be paid by the gas company owning the meter and the gas inspector shall deliver to said gas consumer his certificate, showing that the meter has been found to register more gas than consumed and the fee of one dollar paid — said gas consumer shall be repaid to him by the city treasurer on the production and delivery of such certificate. It shall be the duty of the gas inspector to record in a suitable book provided for that purpose the number of meters inspected and sealed or condemned by him with the date and name of manufacturer and the results of such test, and he shall make a monthly report to the mayor and city council of the results of such tests.

Sec. 6. Meters. Standard and Application. All meters registering within two per cent slow or three per cent fast in every one hundred cubic feet of gas registered at a pressure of not less than one and one-half inches or more than five inches, measured in a water gauge, and when measuring the number of cubic feet per hour that the meter is designed to measure, shall be considered accurate. Inspection herein provided for shall be conclusive, both upon the gas company and the consumer, as to the amount of gas consumed during the three months previous to the month in which such meter shall be inspected.

SEC. 7. Monthly Reports. It shall be the duty of the gas inspector to report in writing monthly to the mayor and city council the result of all tests of gas and meters made by him during said month, showing all moneys received by him, and to pay over to the city treasurer all money collected by him for testing meters and file his receipt therefor.

SEC. 8. Penalty for Violation of Standard. If the gas furnished by any gas company is found on any test to fail to meet the standard and requirements established by this ordinance, the gas inspector shall at once notify in writing the mayor and city council and such gas company, and shall make daily tests thereafter until the gas is found to comply with the standard and requirements herein established. And if the gas of any gas company is found for three consecutive days to fall below the standard and requirements established by this ordinance, such gas company shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be subject to a fine of one hundred dollars for each day that the gas furnished by it fails, upon inspection, to meet the standard and requirements herein established. Provided, the penalty provided for herein shall not be enforced when the failure to furnish gas according to the standard and requirements herein established, is by reason of some unavoidable accident and was not caused through any negligence or fault of said gas company.

SEC. 9. Gas Below Standard Price. In case the gas furnished by any gas company to gas consumers within the City of Lincoln shall fall below the average of 625 British thermal units for the period of a month, beginning on the 20th of the month and ending on the 20th of the succeeding month, a reduction from the maximum amount allowed to be charged therefor by any gas company under the ordinances of the city shall be made to such gas consumers of five cents for each ten British thermal units which the average of such gas as herein above set forth shall show below 625 British thermal units.

SEC. 10. Application of Tests. The tests made by the gas inspector of the city for the purpose of determining the British thermal units shall be conclusive on all gas companies furnishing gas in the City of Lincoln for the purpose of determining the price to be paid for such gas by the gas consumers as herein above set forth. It shall not be necessary for the gas inspector to make more than 15 tests for the purpose of determining the British thermal units on 15 separate days within any given month, and the average thereof shall be taken and deemed to be the average for the month for the purpose of determining the price to be paid therefor. If more than 15 tests are made the average shall be taken of all tests so made.

SEC. 11. Inspection of Books and Records. The books and records of all gas companies shall be subject to inspection by the officers of the City of Lincoln for the purpose of determining the amount charged and received for gas by any such company during any particular month.

SEC. 12. Violations of Ordinance. If any person shall counterfeit or wilfully deface the seal placed upon any gas meter by the gas inspector, the person or persons so offending shall be guilty of a misdemeanor and shall upon conviction thereof be fined not less than twenty-five dollars (\$25.00) or more than one hundred dollars (\$100.00). Any gas company, after receiving a written notice from the gas inspector, refusing to disconnect within twenty-four hours any meter of any consumer in the City of Lincoln and to deliver the same to the gas inspector to be tested shall be guilty of a misdemeanor and upon conviction thereof shall be fined in the sum of not less than ten dollars (\$10.00) or more than one hundred dollars (\$100.00).

SEC. 13. Application of Ordinance. The provisions of this ordinance shall apply to all companies which manufacture or distribute gas for sale for illuminating or heating purposes; and the term "gas company" shall include all persons, firms, corporations or individuals who own or operate works for the manufacture and sale of gas for illuminating or heating purposes.

SEC. 14. Repealing Clause. All ordinances and parts of ordinances in conflict herewith are hereby repealed.

This ordinance shall take effect and be in force from and after its passage, approval and publication according to law.

Introduced by John S. Bishop.

Passed, April 9, 1906.

Approved, April 16, 1906.

[SEAL.]

F. W. BROWN, *Mayor.*

Attest:

THOS. H. PRATT,

City Clerk.

385a

Ex. 104—M. E. W.

Section 1 (Left hand).

		<i>Pipe.</i>					
	Style of street.	Size.	Miles.	Lineal feet.	Tons.	Price per ton.	Cost of Pipe.
1	Dirt.....	2''	30 79	162,578 20	.....	11.60	\$18,859 07
2	Cedar Blks...	"	0 57	3,009 60	.....	Per cwt.	349 11
3	2 Course Br..	"	3 64	19,197 08	.....	"	2,226 86
4	Asphalt.....	"	4 25	22,440 00	.....	"	2,603 04
5	Totals.....						24,038 08
6							
7	Dirt.....	4''	6 70	32,577 60	309 50	33.00	10,213 50
8	2 Course Br..	"	4 80	25,344 00	240 70	"	7,943 10
9	Asphalt.....	"	4 07	21,489 60	204 10	"	6,738 60
10	Totals.....						24,895 20
11							
12	Dirt.....	6''	1 25	6,600 00	99 00	33.00	3,267 00
13	Cedar Blks...	"	0 75	396 00	5 94	"	196 02
14	2 Course Br..	"	2 08	10,982 40	164 70	"	5,435 10
15	Totals.....						8,898 12
16							
17	Dirt.....	8''	0 25	1,320 00	27 72	33.00	914 76
18	Cedar Blks...	"	1 50	7,920 00	166 30	"	5,487 90
19	2 Course Br..	"	0 53	2,798 40	58 76	"	1,939 08
20	Asphalt.....	"	0 53	2,798 40	58 76	"	1,939 08
21	Totals.....						10,280 82
22							
23	Dirt.....	10''	1 04	5,591 20	153 70	33.00	5,072 10
24	2 Course Br..	"	0 22	1,161 60	31 90	"	1,052 70
25	Asphalt.....	"	0 45	2,376 00	65 34	"	2,156 22
26	Totals.....						8,281 02
27							
28	Dirt	12''	0 43	2,270 40	82 86	33.00	2,734 38
29	2 Course Br..	"	0 30	1,584 00	57 80	"	1,907 40
30	Totals.....						4,641 78
31							
32	Dirt.....	16''	0 18	950 40	52 74	33.00	1,740 42
33	2 Course Br..	"	0 06	316 80	17 58	"	580 14
34	Totals.....						2,320 56
35							
36	Dirt.....	20''	0 26	1,372 80	103 64	33.00	3,420 12
37	Totals.....						3,420 12
38							
39	Services.				No. Con's.		
40	Dirt.....	1½''	34 06	179,850 00	3,597		.07½ Per ft.
41	Cedar Blks...	"	0 27	1,440 00	72		"
42	2 Course Br..	"	10 17	53,700 00	1,074		"
43	Asphalt.....	"	8 10	42,700 00	854		"
44	Totals.						

385b

Ex. 104—M. E. W.

Section 2 (Left Center).

Extras.

Drayage.	Lead.	Labor.	Specials.
\$500 00	.....	\$18,578 72	\$1,000 00
472 00	\$3,389 50	13,917 54	2,982 30
135 00	816 00	2,872 00	720 00
93 00	507 00	1,547 00	430 00
125 00	656 00	1,986 60	541 80
70 00	350 00	963 50	385 00
35 00	172 50	543 45	126 70
52 00	268 75	548 80	205 70
.50 per 50'	.....	3 35	(3' Stop Box .72
"	.....	"	(1½" Gas Cock .78.
"	"	"
"	"	"

385c

Ex. 104—M. E. W.

Section 3 (Right Center).

Paving.

Cost Taking Up Cedar Bl'ks, 2-Course Brick, Asphalt, and Replacing.

\$993 17	\$993 17	.....	.....
2,303 65	.....	\$2,303 65	.....
13,089 25	.....	.....	\$13,089 25
<hr/>			
16,386 07			
3,041 28	.....	3,041 28	.....
12,534 88	.....	.....	12,534 88
<hr/>			
15,576 16			
130 68	130 68	.....	.....
1,317 89	.....	1,317 89	.....
<hr/>			
1,448 57			
2,613 60	2,613 60	.....	.....
335 81	.....	335 81	.....
1,632 30	.....	.....	1,632 30
<hr/>			
4,581 71			

139 40	.....	139 40	.....
1,385 92	.....	.....	1,385 92
<hr/> 1,525 32			
190 08	.....	190 08	.....
<hr/> 190 08			
38 02	.....	38 02	.....
<hr/> 38 02			
	316 80	.....	.....
		2,577 60	.....
			6,627 04
	<hr/> 4,054 25	<hr/> 9,943 73	<hr/> 35,269 39

385d

Ex. 104—M. E. W.

Section 4 (Right Hand).

*Services.**Totals.*Cost of, for Paved and Unpaved
Streets.Cost of Labor & Material of Services &
Mains in Paved & Unpaved Streets.

	\$60,502 87
	61,232 70
	14,889 69
	17,439 53
	13,115 74
	6,600 36
	3,236 23
	4,495 37
\$32,373 00	32,373 00
964 80	964 80
12,243 60	12,243 60
14,313 40	14,313 40
<hr/> 59,894 80	<hr/> 241,407 29

386

Ex. 105—M. E. W.

Labor & Extras.

Weight of Cast Iron Pipe.	Size.	Labor.	Extras.
4" = 19# Per Foot.	2" Iron. See Note.		
6" = 30# " "	4" Cast Iron... .14	.03	Per Foot
8" = 42# " "	6" " "16	.04	" "
10" = 55# " "	8" " "18	.05	" "
12" = 73# " "	10" " "22	.06	" "
16" = 111# " "	12" " "25	.10	" "
20" = 151# " "	16" " "35	.10	" "
	20" " "40	.15	" "

NOTE.—2" Iron Pipe .09 Per ft.
Inc. Digging, Backfill and Laying
Lead .05 Per Lb.

Cost of Single Service.

50'—1½" pipe at .07½ per ft.....	\$3.62
1½" Gas cock.....	.78
3' Stop box.....	.72
Labor.....	3.35
Drayage.....	.50
Total.....	8.97

Services.

Dirt Sts. 50' Average Length. Pavement 20' & 30'.

Cost Small Pipe & Fittings.

3' Stop Box.....	.72
1" Gas Cock.....	.53
1½" Gas Cock.....	.78
2" Gas Cock.....	1.75
1½" Gas Pipe.....	\$7.25 Per 100'
2" " ".....	11.60 " "

386a

Ex. 106—M. E. W.

Cost of Laying in Dirt Streets.

207,208 ft. 2 in. pipe at 21c.....	\$43,413.68
82,637 4 52.....	44,971.24
17,978 6 80.....	13,382.40
15,236 8 1.00.....	15,236.00
9,028 10 1.28.....	11,555.84
3,854 12 1.65.....	6,359.10
1,267 16 2.68.....	3,395.56
1,372 20 3.26.....	4,472.72
	<hr/>
	\$142,886.54
338,580	

Services.

5591 Services at \$9.00.....	50,319.00	50,319.00
------------------------------	-----------	-----------

Paving in Wooden Blocks.

11,300 lineal feet main at 33c.....	3,729.00
1,440 " " service" 22c.....	316.80

2 Course Brick.

61,353 lineal feet main at .06c.....	3,681.18
21,480 lineal feet service at .06c.....	1,288.80

Asphalt.

49,100 lineal feet main at 58½.....	28,640.23	
17,080 lineal feet service at 38.....	6,627.04	
		<u>\$44,283.05</u>
		237,488.59

386

107—M. E. W.

APRIL 22, 1908. M. U. N.

Trade Notes.

Cast Iron Pipe.—Foundries report no large lettings in sight for the immediate future, and it is evident that municipal estimates are being cut to meet only imperative improvements. There is no demand of consequence for gas pipe, although some plants are willing to buy on long terms of payment. Quotations: 4-inch, \$27; 6 to 12-inch, \$26; 16-inch and up, \$25, with \$1 extra for gas pipe. Frequent inquiries gives encouragement to manufacturers. Quotations: 4 to 6-inch, \$23; 8 to 12-inch, \$22; over 12-inch, \$21, with \$1 extra for gas pipe. On large contracts these prices have been steadied. San Francisco: Inquiries continue for small quantities all along the coast. Quotations: 6 to 12-inch, \$38; 4-inch, \$39.

Lead.—The market is firm, but dull. The American Smelting & Refining Company is selling at 4c., New York, and independent interests are not competing, asking higher prices. The St. Louis market is also firm at 3.85c. Considerable lead is in the market, bought at lower prices, but holders show no disposition to go after business.

New Pipe Foundry.—

108—M. E. W.

—municipal Journal and Engin—

Trade Notes.

Cast Iron Pipe.—Chicago: Business very quite. Quite a number of small municipal contracts are hinging on the disposal of bond

issues. Competition has resulted in the reduction of \$1 a ton. Quotations: 4-inch, \$27; 6 to 12-inch, \$26; 16-inch and up \$25, with \$1 extra for gas pipe. Birmingham: Proposed improvement in Manila, where 7,000 tons will be needed, and in Cuba where 18,400 tons will be taken, are encouraging to Southern producers. Prices low on large contracts, but firm for small orders. Quotations: 4 to 6-inch, \$27; 8 to 12-inch, \$25; over 12-inch, average \$24, with \$1 extra for gas pipe. New York: Prices advanced on account of stiffening in Southern iron. Quotations: car load lots, 6-inch, \$24.50 to \$25.

Lead.—Market firm with desilverized lead scarce and all grades held firm at 4c., New York. St. Louis market firmer at 3.85c. Inquiries have been made for good sized lots, and the demand continues to improve.

387

Ex. 109—M. E. W.

Western Sales Office.
Pittsburgh Coal Company.
Railway Exchange.
Western Sales Office.

Contract No. —.

CHICAGO, Feb. 27, 1905.

Lincoln Gas & Elec. Lt. Co., Lincoln, Nebr.

Bought of Pittsburgh Coal Company, Chicago, Ill.

Quantity.—About 8000 tons, of 2000 lbs. each, or all they may use at their plant at Lincoln, Nebr., during the life of this contract.

Grade.— $\frac{3}{4}$ " Screened, thin vein, Second Pool, Youghiogeny Gas Coal.

Price.—\$5.20 per ton, F. O. B. cars their plant at Lincoln, Nebr.

Terms.—Cash on or before the 15th of each month for all coal shipped during the month previous.

Route.—Option of the Pittsburgh Coal Company.

Delivery.—Approximate monthly tonnage. About 650 tons per month, as ordered by the Gas Company.

Expiration.—This contract expires April 1st, 1906.

Weights.—Actual Railroad weights by scales nearest loading point to govern all settlements.

This contract is one of a number of contracts made by the seller and is made subject to strikes, accidents, car supply or other causes beyond control.

The buyer and seller in entering into this contract realize the uncertainties of absolute deliveries, growing out of strikes casualties, or other causes beyond the control of either party; and it is hereby mutually acknowledged that the intent of this agreement is not to bind either party as to failure to perform or modified performance by reason of matters beyond the control of the party in default, but that the material shall be shipped by the seller and accepted by the buyer as per delivery specified so far as the labor, the physical conditions at the respective plants, and the ability of carriers will permit. It is mutually understood and agreed, however that in the event of only

partial fulfillment of this contract through restrictions of output from causes beyond control by seller, then the buyer shall accept without recourse such amount of coal as seller may be able under above conditions to supply from the seller's supply of available coal with other obligations.

The coal covered by this contract is to be used only in the plant of the purchaser, located at Lincoln, Nebraska, and not to be sold or delivered to other purposes.

In consideration of the price named in this contract it is understood and agreed that the purchaser shall use no less than sixty tons each month, during the life of this contract.

This agreement is not effective until approved by home office and shall be subject to cancellation in case of violation of any of its terms or conditions.

LINCOLN GAS & ELECTRIC
LIGHT CO.,

(Signed)

By HOMER HONEYWELL,
Acting Gen. Mgr.

PITTSBURGH COAL COMPANY,

(Signed)

By H. J. ELLIOTT, *Sales Agent.*

Approved.

H. W. HORTON,
Western Sales Agent.

388

Ex. 110—M. E. W.

(Copy.)

Pittsburgh Coal Company.

Western Sales Department.

Railway Exchange.

Contract No. —.

CHICAGO, April 5, 1906.

Lincoln Gas & Elec. Lt. Co., Lincoln, Nebr., Bought of Pittsburgh Coal Company, Chicago, Ill.

Quantity.—About 15000 tons of 2000# each, or all they may use at their plant at Lincoln, Nebr., during the life of this contract
Grade.— $\frac{3}{4}$ " Screened Thin vein Second Pool Youghiougheny gas coal.

Price.—\$5.371 $\frac{1}{2}$ per ton, F. O. B. their plant at Lincoln, Nebr. If during the life of this contract, the freight rate at \$2.10 for the mines of Peoria is reduced, the Gas Co. shall receive the benefit of such reduction.

Terms.—Cash on or before the 15th of each month for all coal shipped during the month previous.

Route.—Option of the Pittsburgh Coal Co.

Delivery.—Approximate monthly tonnage. About 650 tons per month, as ordered by the Gas Co.

Expiration.—This contract expires April 1, 1907.

Weights.—Actual Railroad weights by scales nearest loading point to govern all settlements.

Deliveries of coal shall be subject to delays occasioned by strikes, lockouts, accidents and other unavoidable casualties in the operation of the seller's mines, the want of car supply, the failure of the railway companies to deliver or place cars at the mines for loading, or other causes beyond the control of the seller.

It is understood between the parties hereto that the seller will be obliged to deliver coal to other buyers and consumers, and if by reason of the causes above mentioned, or either or any of them, such total obligations exceed the total shipments from the seller's mines, the seller may apportion among the buyer and other customers the coal it may be able to mine or ship for the time being. And in event of partial fulfillment of this contract as aforesaid, the buyer without recourse, shall accept such amount of coal as the seller may be able to supply under such apportionment.

And it is further mutually covenanted and agreed that in the event of the buyer defaulting or failing to comply with the terms of this agreement and refuses to receive coal as specified herein, then this agreement may, at the option of the seller, be cancelled and ended; and for all coal delivered prior to such default, whether billed and paid for or not, the buyer shall pay, and hereby agrees to pay, the regular net circular price or prices in effect at the time of delivery.

The coal covered by this contract is to be used only in the plant of the purchaser, located at Lincoln, Nebraska, and not to be sold or delivered to other purposes.

This agreement is not effective until approved by home office and shall be subject to cancellation in case of violation of any of its terms or conditions.

LINCOLN GAS & ELECTRIC
LIGHT CO.,

(Signed)

By HOMER HONEYWELL,
Acting Gen. Mgr.
PITTSBURGH COAL COMPANY,
By H. J. ELLIOTT, *S. Ag't.*

Approved.

W. H. HORTON,

Western Sales Agent.

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Ex. 111—M. E. W.

(Copy.)

Pittsburgh Coal Company of Illinois.

Railway Exchange.

*Contract No. —.*CHICAGO, *March 19, 1907.*

Lincoln Gas & Electric Light Company, Lincoln, Nebr., Bought of
Pittsburgh Coal Company, Chicago, Ill.

Quantity.—About 15000 tons, or all they may use at their plant
at Lincoln, Nebraska, during the life of this contract.

Grade.— $\frac{3}{4}$ " Screened Thin Vein Second Pool Youghiougheny
Gas Coal.

Price.—\$5.52 per ton of 2000 lbs. each, f. o. b. cars, their works,
Lincoln, Nebraska.

Terms.—Cash on or before the 15th of each month for all coal
shipped during the month previous.

Route.—Option of Pittsburgh Coal Co.

Delivery.—Approximate monthly tonnage. 1200 tons per month.

Expiration.—This contract expires April 1, 1908.

Weights.—Actual Railroad weights by scales nearest loading point
to govern all settlements.

The above prices are based upon present freight rate per ton of
2000 lbs.; should freight rate advance or decline these prices will
advance or decline accordingly.

Deliveries of coal shall be subject to delays occasioned by strikes,
lockouts, accidents and other unavoidable casualties in operation of
seller's mines, the want of car supply, the failure of the railway com-
panies to deliver or place cars at the mines for loading, or other
causes beyond the control of the seller.

It is understood between the parties hereto that the seller will be
obliged to deliver coal to other buyers and consumers, and if by
reason of the causes above mentioned, either or any of them, such
total obligations exceed the total shipments from the seller's mines,
the seller may apportion among the buyer and other customers the
coal it may be able to mine or ship for the time being. And in event
of partial fulfillment of this contract as aforesaid, the buyer, without
recourse, shall accept such an amount of coal as the seller may be
able to supply under such apportionment.

And it is further mutually covenanted and agreed that in the
event the buyer defaults or fails to comply with the terms of this
agreement, and refuses to receive coal as specified herein, then this
agreement may, at the option of the seller, be cancelled and ended;
and for all coal delivered prior to such default, whether billed and

paid for or not, the buyer shall pay, and hereby agrees to pay, the regular net circular price or prices in effect at the time of delivery.

The coal covered by this contract is to be used only in the plant of the purchaser, located at Lincoln, Nebraska, and not to be sold or diverted to other purposes.

This agreement is not effective until approved by home office and shall be subject to cancellation in case of violation of any of its terms or conditions.

LINCOLN GAS & ELECTRIC LIGHT
COMPANY,

(Signed) By HOMER HONEYWELL,
PITTSBURGH COAL COMPANY OF
ILLINOIS,

(Signed) By H. J. ELLIOTT, S. A.

Approved.

A. W. HORTON,
Western Sales Agent.

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Ex. 112—M. E. W.

(Copy.)

Agreement made this 6th day of April, A. D., 1905, between the Standard Oil Company (Indiana) party of the first part, and the Lincoln Gas & Electric Light Company, Lincoln, Nebraska, party of the second part,

Witneseth: For valuable consideration it is agreed between the parties aforesaid, as follows:

The first party agrees to and does hereby sell to the second party, and the second party agrees to and does hereby purchase from the first party all the Gas Oil the second party shall use for the manufacture of Gas in its plant during the period of twelve (12) months from the above date, such supply estimated to be four hundred thousand (400,000) gallons, and it is hereby agreed shall not exceed four hundred fifty thousand (450,000) gallons, at and for the price of four and five one-hundredths (4.05) cents per gallon, in tank cars delivered at Lincoln, Nebraska, shipments to be made from Sugar Creek, Missouri.

The first party shall ship the aforesaid goods to Lincoln, Nebraska, as the business of the second party may require, and as they may in writing order, but not less than one tank car at any one time, and as near as may be in equal quantities until the whole amount contracted for is delivered.

This agreement is understood to cover all the liquid Gas-making material that may be required for use in the plant of the party of the second part during the period embraced in this agreement.

The first party agrees that there shall be no unnecessary or unusual detention in the shipments of the goods herein mentioned, but they shall not be held responsible for accidents or unavoidable delays in delivery of same.

There shall be no delay in unloading cars. If cars are detained at destination over 48 hours (Sundays and Legal Holidays excepted) for the first day's detention thereafter there will be a charge of one dollar \$1.00; for the second day, \$2.00; for the third and each succeeding day, \$3.00.

Terms: Net cash thirty (30) days after date of shipment, payments to be made in New York or Chicago Exchange.

In witness whereof the said parties have executed this agreement in duplicate the day and date first written herein.

LINCOLN GAS & ELECTRIC LIGHT
CO.,

(Signed) By HOMER HONEYWELL,
Acting Gen. M^gr.
STANDARD OIL COMPANY OF

INDIANA,
(Signed) By N. W. COWAN, *Vice-Pres.*

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Ex. 113—M. E. W.

(Copy.)

Agreement made this 21st day of March A. D., 1906, between the Standard Oil Company (Indiana) party of the first part, and the Lincoln Gas & Electric Light Company, Lincoln, Nebraska, party of the second part.

Witnesseth: For valuable considerations it is agreed between the parties aforesaid, as follows:

The first party agrees to and does hereby sell to the second party, and the second party agrees to and does hereby purchase from the first party all the Gas Oil the second party shall use for the manufacture of gas in its plant during the period of twelve months from April 6, 1906, such supply estimated to be four hundred fifty thousand (450,000) gallons, and it is hereby agreed shall not exceed five hundred thousand (500,000) gallons, at and for the price of four and one-tenth (4-1/10) cents per gallon, in tank cars delivered at Lincoln, Nebraska, shipments to be made from Sugar Creek, Missouri.

The first party shall ship the aforesaid goods to Lincoln, Nebraska, as the business of the second party may require, and as they may in writing order, but not less than one tank car at any one time, and as near as may be in equal quantities until the whole amount contracted for is delivered. This agreement is understood to cover all the liquid Gas-making material that may be required for use in the plant of the party of the second part during the period embraced in this agreement.

The first party agrees that there shall be no unnecessary or unusual detention in the shipment of the goods herein mentioned, but they shall not be held responsible for accidents or unavoidable delays in the delivery of same.

There shall be no delay in unloading cars. If cars are detained at destination over 48 hours (Sundays and Legal Holidays excepted)

for the first day's detention thereafter there will be a charge of One Dollar; for the second day, two dollars; for the third and each succeeding day, Three Dollars.

Terms: Net cash *thirt*^h (30) days after date of shipment, payments to be made in New York or Chicago Exchange.

In witness whereof the said parties have executed this agreement in duplicate the day and date first written herein.

STANDARD OIL COMPANY,

(Signed) By G. W. STAHL, *Treas.*

LINCOLN GAS & ELECTRIC LIGHT
CO.,

(Signed) HOMER HONEYWELL,

Active Gen. M'g'r.

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Ex. 114—M. E. W.

(Copy.)

Gas Oil (27-34 degrees).

Agreement made this 15th day of April, A. D. 1907, between the Standard Oil Company of Nebraska, a corporation organized under the laws of the State of Nebraska, party of the first part, and the Lincoln Gas & Electric Light Company, of Lincoln, Nebraska, party of the second part, Witnesseth:

In consideration of the mutuality hereof, it is hereby agreed between the parties hereto as follows:

1. The party of the first part sells and agrees to deliver to the party of the second part the number of gallons of Gas Oil (27-34 degrees) the second party shall use in the manufacture of gas in its plant during the contract period beginning April 15, 1907, and ending April 15, 1908; such supply estimated to be 500,000 to 600,000 gallons.

The party of the second part agrees to receive the gas oil defined in Section 1 at and for the price of four and 20/100 (.0420) cents per gallon delivered in tank cars at Lincoln, Nebraska; such deliveries to be made as the business of the second party may require and as they in writing order but not less than one tank car at any one time.

This agreement is understood to cover the liquid gas making material that will be required for use in the plant of the said party of the second part during the period embraced in this agreement.

The party of the first part agrees that there will be no unusual or unnecessary detention in the shipment of the oil herein mentioned, but said party shall not be held responsible for accidents or unavoidable delays in the delivery of same.

It is agreed that the party of the second part is to make all necessary arrangements for the prompt unloading and return of cars upon arrival at their works, and in all instances to use their utmost endeavors to prevent delay.

It is agreed between the parties hereto that payments shall be made in cash, monthly, on invoices of the preceeding month; payments to be made in Omaha Exchange.

In witness whereof the parties hereto have executed this agreement the day and date first written hereunder.

STANDARD OIL COMPANY,
NEBRASKA,

(Signed)

By C. L. ALLEMAN,
Vice-President.

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Ex. 116—M. E. W.

The Fidelity Land & Improvement Co.,
Miners and Shippers of Anthracite and Bituminous Coal,

Sixth Floor Keith & Perry Bldg.

E. R. Dusky, Gen'l Sales Mgr.
General Offices: Kansas City, Mo.

KANSAS CITY, Mo., *Feb'y 1st, 1904.*

Lincoln Gas & Electric Light Co., Lincoln, Nebraska.

GENTLEMEN: We hereby agree to furnish you with what coal you may require for one year from the date of this letter at the following price per ten of two thousand pounds f. o. b. mines:

Cherokee or Fidelity Deep Shaft Shaker Screened Gas
Lump \$2.25

The coal to be furnished to be known as Cherokee or Fidelity. Railroad or mine weights in all cases to govern settlements. Payments to be made on or before the tenth day of each month for all coal shipped during the preceding month. You to take your supply of Kansas coal from us, and we are to fill your orders promptly at all times, except in cases of strikes of mine or railway employes, break-downs at mines, contingencies of transportation and other unavoidable delays.

It is further mutually agreed and understood that should there be any advance or reduction in the cost of mining during the life of this contract, the above price shall be accordingly reduced or advanced.

The acceptance of this proposition in writing is to be considered a contract and binding on both parties.

Yours truly,

(Signed)

E. R. DUSKY,
General Sales Manager.

Accepted:

(Signed)

LINCOLN GAS & ELECTRIC LIGHT CO.
HOMER HONEYWELL.

Indorsed: Contract with Gas Co. Fidelity Coal. Expired Feb'y 1st, 1905.

1905.....3808
 1906.....5426
 1907.....6290
 Ex. 117—M. E. W.

No. 1.

	1905.		1906.		1907.	
	\$	C. per M.	\$	C. per M.	\$	C. per M.
Coal Gas.						
Coal Carbonized.....	31091 85	52 32	43033 89	60 97	42844 46	61 39
Economizer Royalty	171 53	00 29	230 74	00 33	178 41	00 26
Bench Fuel	3499 31	05 88	5065 92	07 22	5347 42	07 66
Total Cost Coal Gas Material.....	34762 69	58 49	48340 55	68 52	48370 29	69 31
Less Coke Residual.....	18716 53	31 15	22566 96	31 97	20537 73	29 43
Tar Residual	2221 65	03 74	1316 96	01 87	1248 26	01 79
Total Residual	20738 18	34 89	23883 92	33 84	21785 99	31 22
Net Cost Coal Gas Material.....	14024 51	23 59	24476 63	34 68	26584 30	38 09
Retort House Labor.....	3113 26	05 24	4790 97	06 79	5708 18	08 18
Bench Repairs	1255 62	02 11	1976 39	02 80	4022 24	05 76
Retort House Expense.....	331 46	00 56	299 12	00 38	201 54	00 29
Total Cost Generating Coal Gas.....	18724 85	31 50	31713 11	44 65	36516 26	52 32
Steam	1500 00	02 52	1500 00	02 12	1649 97	02 36
Purifying Labor, Expense & Repairs.....	100 94	00 27	460 92	00 65	386 68	00 55
Purifying Material	90 00	00 15	279 11	00 39	389 13	00 56
Gen'l Works Repairs, Coal Gas.....	140 04	00 23	397 36	00 56	812 40	01 16
Gen'l Works Apparatus.....	937 76	01 58	1125 61	01 60	908 62	01 30
Sundry Labor	828 56	01 41	1163 90	01 65	1303 51	01 87
Works Expense & Supplies.....	874 68	01 47	824 32	01 17	878 50	01 26
General Supervision	970 66	01 64	1034 78	01 47	1052 67	01 51
Total Purifying & Storage.....	5512 64	09 27	6786 00	09 61	7381 48	10 57
Total Cost Coal Gas in holder.....	24237 49	40 77	38290 11	54 26	43897 74	62 90

Manufacturing Cost Water Gas.

1905..... .4095
 1906..... .4195
 1907..... .3951

Ex. 118—M. E. W.

No. 2.

Water Gas.

	1905.		1906.		1907.	
	\$	C. per M.	\$	C. per M.	\$	C. per M.
Steam for Generating.....	3794 56	03 53	4107 16	03 56	4183 74	03 15
Generating fuel	12683 95	11 76	13985 51	12 12	14491 19	10 90
Enricher	17455 65	16 22	17587 74	15 25	20023 74	15 51
Total Material	33914 11	31 51	35677 41	30 93	39298 67	29 56
Less Tar Residual.....	214 97	00 19	.....	.....	916 14	00 69
Net Cost Material.....	33699 19	31 32	35367 41	30 93	38382 53	28 87
Gas Making Labor.....	2147 24	01 96	2919 50	02 53	3737 66	02 81
Repairs W. G. Generating Apparatus.....	1953 28	01 81	2312 47	02 01	1045 53	00 79
Water Gas Gen. House Expense.....	39 90	00 04	73 79	00 06	24 03	00 02
Total cost Generating Water Gas.....	37839 70	35 16	40083 17	35 53	43189 75	32 49
Steam	480 00	00 45	480 00	00 42	880 78	00 66
Purifying W. G. Labor Exp. & Repairs.....	157 68	00 15	621 24	00 54	799 10	00 60
Purifying W. G. Material.....	210 00	00 19	226 50	00 19	392 04	00 30
Generating Works Repairs.....	127 82	00 12	327 11	00 28	253 03	00 19
Generating Apparatus Repairs.....	734 48	00 68	952 26	00 83	966 16	00 75
Sundry Labor	1271 42	01 18	1494 95	01 29	2266 18	01 70
Works Expense & Supplies.....	1483 60	01 38	1453 89	01 26	1662 97	01 25
General Supervision	1757 44	01 63	1857 98	01 61	2084 52	01 57
Total Cost Purifying & Storage.....	6222 44	05 78	7413 93	06 42	9334 78	07 02
Total Cost Water Gas in holder.....	44062 14	40 95	48997 10	41 05	53524 53	39 51

Net Cost in Holder of Gas Sold.

1905.....	.4178
1906 .....	.4789
1907.....	.4808

Ex. 119—M. E. W.

No. 3.

Mixed Gas.

	1905.		1906.		1907.	
	\$	C. per M.	\$	C. per M.	\$	C. per M.
Manufacturing Expense per 1000 cu. ft. sold, less used by Co. & lost.....	60035 87	41 78	73580 22	47 89	86233 19	48 08
Distribution Expense:						
Street main Maintenance.....	949 45	00 66	638 00	00 42	1147 28	00 64
Service Maintenance	10690 36	00 74	396 60	00 25	385 17	00 22
Street Dept. Expense.....	716 51	00 50	608 38	00 39	797 48	00 44
Meter Maintenance	868 70	00 60	1037 36	00 68	1338 31	00 75
Meter Dept. Expense.....	404 20	00 28	353 11	00 23	458 60	00 26
Setting & Removing Meters.....	1933 56	01 35	2392 51	01 56	2011 93	01 12
Gratuitous Work	1820 32	01 27	1906 52	01 24	1891 53	01 05
Total.....	7753 10	05 40	7332 48	04 77	8030 30	04 48
Gas Lost & Unaccounted for.....	8900 95	05 57	12301 84	08 01	9947 75	05 54
Total Distribution Expense.....	15754 05	10 97	19634 32	12 78	17978 05	10 02

	1905.		1906.		1907.	
	\$	C. per M.	\$	C. per M.	\$	C. per M.
Mixed Gas.						
Collection Department:						
Reading Meters	689 38	00 49	980 55	00 64	952 10	00 53
Collection Clerical Salaries.....	3153 27	02 20	3670 97	02 39	5355 20	02 90
Collection Office Expense.....	677 01	00 48	702 68	00 46	770 14	00 43
Rent Collection Office.....	554 08	00 38	537 31	00 34	634 42	00 35
Delivering Bills	155 82	00 10	141 37	00 09	176 26	00 10
Outside Collections	461 54	00 32	659 73	00 43	709 63	00 39
Total Collection Expense.....	5701 10	03 97	6692 61	04 35	8597 75	04 79
Executive Department:						
Executive Salaries.....	2446 68	01 70	2804 70	01 82	3215 52	01 79
General Clerical Salaries.....	484 00	00 34	493 62	00 32	394 80	00 22
General Office Expense.....	337 32	00 23	340 30	00 22	478 25	00 27
Incidental Expense	1621 85	01 13	2137 77	01 39	1723 38	00 96
Rent of Executive Office.....	356 48	00 25	485 38	00 32	664 04	00 37
Legal Expense	652 87	00 45	757 43	00 49	2160 31	01 20
Total Executive Expense.....	5890 20	04 10	7019 20	04 56	8936 30	04 81
Promoting New Business.....	15919 73	11 08	13432 41	08 74	13394 04	07 47
Taxes	2112 00	01 47	6690 48	04 36	7085 04	03 95
Total General Expense.....	23930 93	16 65	27142 09	17 66	29115 38	16 23
Grand Total	105421 95	73 37	127049 24	82 68	141924 37	79 12

Gas Made and Sold.

	Made.	Sold.			
1902.....	85,246,000	75,680,800			
1903.....	106,210,000	98,343,284			
1904.....	128,501,512	117,429,858			
1905.....	167,039,400	143,690,700			
1906.....	185,917,700	153,663,600			
1907.....	202,720,200	179,366,300			
Ex. 120—M. E. W.					
	# 4.				
	1902.	1903.	1904.	1905.	1906.
Coal Gas Made.....	33,695,000	35,823,000	37,621,500	59,427,300	70,581,200
Water Gas Made.....	51,581,000	70,387,000	90,880,012	107,612,100	115,336,500
Total Gas Made.....	85,276,000	106,210,000	128,501,512	167,039,400	185,917,700
Gas Sold	75,680,800	98,343,284	117,429,858	143,690,700	153,663,600
Used by Company.....	1,412,400	585,000	675,800	720,600	438,200
Loss and Unaccounted for.....	8,394,800	7,272,505	10,339,625	22,589,000	30,587,200
Per cent. Unaccounted for.....	9.84	6.84	8.20	13.53	16.56
					11.84
					179,366,300
					586,700
					24,013,600
					202,720,200
					69,789,600
					132,930,600

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#121.

Comparative Net Rates.

1905—\$1.20 net per M. for both light and fuel.
 1906—\$1.20 net per M. for both light and fuel.
 1907—\$1.20 net per M. for both light and fuel.

EXHIBIT 121.

Comparative Ratios.

	Per cent.
Water Gas made in 1906 shows increase over amount made in 1905 of.....	6.26
Cost of Generating Water Gas in 1906 shows increase over cost of Gen- in 1905 of.....	8.30
Coal gas made in 1906 shows increase over amount made in 1905 of	18.77
Cost of Generating Coal Gas in 1906 shows increase over cost of Generating in 1905	68.29
Water Gas made in 1907 shows increase over amount made in 1905 of	23.52
Cost of Generating Water Gas in 1907 shows increase over cost of generating in 1905 of.....	14.13
Gas making labor 1907 shows increase over same in 1905...	74.07
Purifying labor Expense & Supplies in 1907 shows increase over same in 1905.....	406.7
Purifying Material 1907 shows increase over same in 1905..	86.7
Total Cost in holder of Water Gas 1907 shows increase over same in 1905.....	19.2
Coal gas made in 1907 shows increase over amount made in 1905	17.43
Cost of generating coal gas in 1907 shows increase over cost of generating in 1905.....	95.00
Cost of coal gas in holder in 1907 shows increase over same in 1905	81.11
Bench Repairs, 1907, shows increase over same in 1905....	220.
Retort House Labor 1907 shows increase over same in 1905.	83.35
Tons of Coal Carbonized 1907 shows increase over same in 1905	16.14
Purifying labor, Expense & Supplies 1907, shows increase over same in 1905.....	140.21
Purifying Material 1907 shows increase over same in 1905..	332.36
Sundry labor 1907 shows increase over same in 1905.....	55.44
General Works Repairs, 1907 shows increase over same in 1905	480.
Mixed Gas made in 1907 shows increase over 1905.....	21.36
Distribution Expense 1907 shows increase over same in 1905 of	3.57
Reading meters 1907 shows increase over same in 1905 of.	36.00

Collection Clerical Salaries, 1907 shows increase over same in 1905 of	70.00
Outside Collections 1907 shows increase over same in 1905 of	53.7
Executive Expenses 1907 shows increase over same in 1905 of	46.4

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122.

Gas Sales, Expense & Net Earnings.

	Sales.	Expense.	Net earnings.
1902.....	75,680,800	\$91,051.62	\$15,174.74
1903.....	98,343,300	81,582.79	52,888.27
1904.....	117,429,858	101,472.85	51,373.30
1905.....	143,690,700	105,421.95	68,197.08
1906.....	153,663,000	127,049.24	58,729.02
1907.....	179,366,300	141,924.37	73,851.83

Ex. 122—M. E. W.

Comparative Statement of Gas Sales, Expenses and Net Earnings.

Year.	Cubic feet gas sold.	Average net price per 1,000.	Gross earnings—gas.	Operating expenses—gas.	Net earnings—gas.
1902....	75,690,800	\$1.3833	\$104,766 66	\$74,164 96	\$30,601 70
1903....	98,343,284	1.3664	134,471 06	81,582 79	52,888 27
1904....	117,429,858	1.3015	152,846 15	101,472 85	51,373 30
1905....	143,690,700	1.2086	173,619 03	105,421 95	68,197 08
1906....	153,663,600	1.2090	185,778 26	127,049 24	58,729 02
1907....	179,366,300	1.2031	215,776 20	141,924 37	73,851 83
Totals.....			\$967,257 36	\$631,616 16	\$335,641 20

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125.

Expenses and Earnings Gas Department.

	Expenses.	Earnings.
1904	\$101,472.85	\$152,846.15

400

126.

Earnings & Expenses Gas Department by Month, 1905.

	Earnings.	Expenses.
Jan.	\$13,728.03	\$9,366.69
Feb.	12,874.64	8,220.61
March	13,791.38	8,883.34
April	13,940.71	8,741.47
May	13,805.99	7,756.28
June	13,742.16	8,261.63
July	13,709.95	7,952.93
Aug.	14,233.66	8,099.03
Sept.	15,744.65	8,202.77
Oct.	15,749.25	9,186.04
Nov.	15,981.42	9,928.23
Dec.	16,317.19	10,772.93

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THE LINCOLN GAS & ELECTRIC LIGHT CO. VS.

401

#127.

Earnings and Expenses Gas Department for the Year 1905.

Earnings.	Expenses.
\$173,619.03	\$105,421.95

402

#128.

Earnings & Expenses Gas Department for the Year 1906.

Earnings.	Expenses.
\$185,778.26	\$127,049.24

403

EXHIBIT 129.

1.

Gas Construction.

1873.

National Gas Building Co.....	\$54,185.99	
Extension of Main	61.33	
		<hr/> 54,247.32

1874.

Laying Pipe	\$39.27	
A. G. Hastings	413.34	
D. McDonald & Co., Meters.....	222.00	
D. Long, Retorts	212.70	
		<hr/> 887.31

1875.

No Construction.

1876.

C. E. Gray, Exp. to St. Louis.....	28.25	
A. G. Bowman, Pipe.....	1,001.84	
LacLede Brick Co.	88.13	
Fittings	7.85	
Labor	5.60	
Cash, Freight Check	9.57	
Cash, Chambers	8.75	
Cash, Smeltywks	205.20	
H. J. W. Phil.....	200.00	
L. H. Case	4.00	
On trenches	118.00	
Redfield B. & Co.....	99.69	
On trenches	82.30	
At works	65.00	
B. & M. Freight.....	203.53	
B. & M. Freight.....	103.50	
Moore & Crone.....	30.00	

N. Y. Draft, lead.....	106.50
Disct.	31.00
S. J. Chambers.....	21.00
Labor, trenches	100.00
Moore & Crone.....	9.00
Chambers	21.00
Freight	23.24
Disct.	31.00
Union Foundry	7.00
H. S. Babcock.....	30.40
A. & N. Frt.....	63.00
Labor, trenches	109.00
D. McDonald & Co.....	456.10
“ “	88.75
Lewis Lawson	30.50

 \$9,937.44

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1877.

C. Johnson	32.00
D. L. Graham Extras.....	27.84
Leighton & B.	12.22
John Fisher	11.70
H. Bins stone	18.00
Hawley & B.	38.35
D. & C. L. Baum.....	9.22
Moore & Crone	26.60
Carter Bros.	15.90
Babcock	91.04
B. & M. Freight.....	36.16
Laclede Mfg. Co.	543.35
Construction renewal	31.00
Construction Babcock	66.20
“ lime house	25.00
“ Baum lime house.....	6.50
“ coal house lumber.....	133.40
“	5.80
“ W. & P.....	100.00
“ “	27.00
“ “	100.00
“ “	20.84
“ “	60.02
D. McDonald & Co.....	115.00
Construction Laclede W.....	29.25
Construction W. E. Jones & Co.....	5.60
“ A. Nichol	40.00
“ Schaberg	11.70
“ Buckstaff & Co.	1.00
“ Baum & Co.....	1.70

407

Construction	Garnashee	14.00
"	R. J. Williams	25.00
"	Baum	6.92
"	J. Hagan, brick	17.35
"	Buckstaff & Co.	2.00
"	Baum	3.20
"	C. Koch for mason, brick W. K. Lime-house	50.00
Moore & Crone re-building works		390.63
J. G. Rosling, carpenters gas works		48.40

3—404.

Construction	carpenter, W. & P.	13.00
"	lumber Jones W. & P.	48.52
"	lead, Omaha Smelting works ..	7.75
"	Wm. Ashton, pipe	26.70
"	W. G. Jones & Co. pd. by W. & P.	314.60
"	Laclede F. B. Mfg. Co.	193.35
"	Wm. Ziegler	4.65
"	checks #243 and #244	12.75
"	Stevens Laying pipe	7.15
"	Wm. Ashton, pipe	24.99
"	4¾ days Hitchcock	7.00
"	Dave Kitchen	9.35
"	D. McDonald & Co.	42.16
"	Wm. Cadget	6.00
"	Bignell	93.48
"	small bills	30.05
"	Borax	1.00
"	Hitchcock	3.15
"	Wm. Ashton pipe	25.00
"	D. & C. L. Baum	9.91
"	R. L. Smith	1.50

408

Construction	D. McDonald & Co.	75.60
"	Hiltner at works	20.18
"	Jas. Gilbert wtg. holder	135.40
"	Small bills	30.12
"	Wm. Ashton	2.01
"	R. L. Smith	14.68
"	Cart. freight on pump	1.57
"	Well point, etc.	4.00
"	F. M. Howf.	3.30
"	Small bills	27.32

 3,371.55

1878.

Construction	Byer & Batty.....	7.50
"	M. L. Hiltner.....	1.20
"	Jones, lumber lime house.....	62.61
"	Hedges, weights.....	46.24
"	R. L. Smith.....	11.45
"	Lime house, Buckstaff.....	12.81
"	Bignell & Co. Steam pump....	110.88
"	G. W. Jones & Co.....	3.30
"	Kitchen, work.....	1.00
"	Service Church Kitchen.....	2.00
"	Isaac Gasot.....	4.00
"	Dave Kitchen.....	3.00
"	Christoom.....	4.50
"	D. Kitchen.....	1.00
"	Work on service, <i>Crawford</i>	1.50
"	D. Kitchen.....	1.50
"	I. Zain.....	.75

409

Construction	Wm. Lowery.....	1.50
"	freight on pipe.....	60.00
"	I. Zinn.....	7.20
"	D. B. Bootoon.....	5.70
"	F. M. House.....	5.70
"	Kitchek.....	7.20
"	Telegraph Will S. Wise.....	.40
"	Field House, Dutchen & B....	49.85
"	Cash, freight pipe.....	7.88
"	Cartage two loads pipe.....	1.00
"	Dave Kitchen.....	4.35
"	Adv. Beatrice Journal.....	.75
"	D. & C. L. Baum.....	1.65
"	Dave Kitchen.....	4.50
"	" ".....	6.75
"	H. J. Bigam.....	1.30
"	Humphrey Bros.....	1.35
"	small items.....	11.10
"	A. Nichol.....	2.56
"	Sycamore Morris Harvester Co.	2.04
"	D. Kitchen.....	4.50
"	J. T. Beach.....	.75
"	Bignell & O.....	7.90
	J. H. McAleer digging and fill- ing 242½ rods trenches....	145.50

4-405.

Construction	Wheeler, fittings.....	2.00
"	Wm. Lowery Jul. & Aug.....	40.00
"	Lumber, Babcock.....	36.25
"	D. & C. L. Baum.....	11.10

"	Buckstaff & Co.....	93.04
"	Dave Kitchen	5.25

410

Construction	Carter & Godfrey.....	18.25
	Stiles & L. Coal house.....	20.00
	Dave Kitchen	5.25
	C. D. Bacon.....	3.75

 1,656.06

1879 and 1880.

Construction	Bignell & O.....	18.64
"	D. Kitchen	30.00
"	"	16.50
"	Nat'l Tube Works.....	19.57
"	Fr't. B. & M.....	1.85
"	Nat'l Tube Works.....	19.52
"	Fr't. Pipe	109.38
"	F. J. Loveland.....	5.55
"	D. Kitchen	2.55
"	Holmes .....	.50
"	Cartridge, two barrels tar.....	.25
"	Nat'l Tube Works, invoice....	35.14
"	Furnas	3.00
"	Invoice	1,638.69
"	Lock nut .....	.28
"	Fr't. Pipe, B. & M.....	57.00
"	Work on Ditches, Howard....	4.50
"	D. Kitchen	12.75
"	P. A. Robbins.....	10.65
"	J. Christoffer	18.75
"	D. A. Bouton.....	9.65
"	Lawsons and others.....	31.95
"	Nat'l Tube Works.....	56.38
"	"	1.75
"	Sundries, May 17th.....	78.50
"	" 31st.....	100.65

411

Construction	Fr't. on pipe.....	9.60
"	Laying Pipe	38.10
"	Bouton	4.40
"	Shepers C. P. G.....	1.00
"	A. G. Bemis.....	12.43
"	J. Christoffer.....	18.75
"	D. Kitchen	7.00
"	Tuttle & Doolittle.....	42.55
"	D. Kitchen	2.65
"	Men to Asylum.....	24.60
"	"	9.15
"	Express, gas fixtures .....	.35
"	To Asylum, Robbins.....	3.15
"	" Larson	3.15

"	"	D. Kitchen.....	5.50
"		May & Cooper.....	19.19
"		Fr't. fixtures, B. & M.....	9.60
"		May & C. Asylum.....	9.55
"		Laying Pipe.....	10.50
"		Scraping & Plowing.....	10.00
"		Fr't. Sept. 19 and 26.....	15.85
"		Walter Carveth.....	5.00
"		Dave Kitchen.....	10.90
"	"	.....	5.65
"		Nat'l Tube Works.....	273.06
"		A. & N. Fr't. Pipe.....	18.28
"		D. Kitchen on trenches.....	8.25
"		Fr't. A. & N.....	7.70
"		D. Kitchen.....	3.00
"		L. Stevenson.....	1.90
"		J. Lawson.....	12.20

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Construction	L. Stevenson.....	12.20
"	Byers.....	2.95
"	J. Christoffer.....	11.85
"	D. Kitchen.....	8.60
"	Larson.....	7.85
"	D. Kitchen.....	6.75
"	J. Christoffer.....	5.00

5—406.

1879 and 1880.

Construction	J. Christoffer.....	8.75
"	T. L. Stevenson.....	13.75
"	T. Walker.....	2.50
"	A. & N. Fr't. on Pipe.....	7.70
"	Nat'l Tube Works Co.....	107.28
"	L. B. Rippley, St. Louis.....	14.42
"	D. Kitchen.....	9.60
"	Pipe, L. B. Ripley.....	108.71
"	J. Sullivan.....	11.25
"	D. Kitchen.....	7.50
"	".....	8.15
"	J. Sullivan.....	3.00
"	D. Kitchen.....	3.25
"	Pipe.....	50.10
"	Laying Pipe.....	8.75
"	".....	12.00
"	J. Ward, trenches.....	6.90
"	D. & C. L. Baum.....	16.04
"	Carpenter, Harper.....	36.00
"	Morris Tasker & Co.....	51.73
"	D. Kitchen.....	12.00
"	B. & M. Fr't. Retorts.....	83.40
"	Adams, team work.....	7.50

"	D. Kitchen	8.65
"	D. H. Pruty.....	6.00
"	D. Kitchen.....	6.00
"	Adams	8.25
"	Labor	8.05
"	C. A. Creamer & Co.....	6.00
"	Buckstaff & Co.....	199.98
"	D. Kitchen	9.00
"	Hamil	6.25
"	Ruddy	9.00
"	Morris Tasker & Co.....	135.00
"	D. Kitchen	8.25
"	Ruddy	8.25
"	Kitchen	6.75
"	Ruddy	6.75
"	"	5.25
"	Kitchen	6.00
"	U. P. Frt. Casting.....	53.90
"	B. & M. Frt.....	65.40
"	Bullock Stone	8.05
"	Taylor Jones	5.50
"	Kitchen	14.25

 4,122.97

413

1881.

Construction	John Fisher	12.60
"	Buckstaff	18.80
"	Evans & Howard.....	114.00
"	May & Cooper.....	5.10
"	Stout, brick	9.00
"	D. Kitchen	6.00
"	J. Sullivan	5.75
"	"	8.25
"	D. Kitchen	8.25
"	Men at works.....	63.00
"	D. Kitchen, service work.....	9.00
"	J. Sullivan	9.00
"	D. Kitchen, trenches.....	9.00
"	Sullivan trenches	7.50
"	D. Kitchen	7.50
"	Sullivan trenches	6.00
"	Kitchen	6.00
"	A. Cox	1.50
"	Rough	3.00
"	Anderson Bros.	14.50
"	Frt. on pipe.....	50.28
"	Anderson Bros.	14.50
"	Nat'l Tube Works.....	448.57
"	D. Long & Co.....	477.82
"	Walton, laying pipe.....	18.00

 1,318.42

6—407.

1882.

Construction	Stacy Mfg. Company.....	4,307.61	
"	John Lanham	4,900.00	
"	C. M. Slade, Mason tender....	8.75	
"	Nat'l Tube Works.....	278.39	
"	Keyes & Bullock.....	98.50	
"	Frt. on boiler.....	36.82	
"	Boiler	295.00	
"	Old Smelting Works.....	24.50	
"	Labor laying brick.....	23.61	
"	Johnson & D. G. Lay. Br'ck...	34.50	
"	Logan, tending mason.....	.45	
"	J. Macheil	4.40	
"	Johnson, laying brick.....	10.00	
"	Nat'l Tube Works.....	213.17	
"	Young, sand	9.00	
"	D. Groth & Tender.....	19.30	
"	Werr laying pipe.....	27.60	
"	Holmes, brick	100.00	
"	John Werr laying pipe.....	46.88	
"	Frt. on Exhauster.....	15.11	
"	Hiltner, carpenter	23.70	
"	Cooper, pipe &c.....	68.51	
"	Smith Exhauster	615.00	
			11,160.80

414

1883.

Construction	Main by Cobb.....	51.10	
	10th Street Extension.....	5.20	
	"	14.25	
	"	17.00	
	Constructing lamp main.....	39.40	
	"	34.20	
	"	31.50	
	"	31.35	
	"	17.50	
	"	29.10	
	Wm. Grainger	10.60	
	"	19.77	
	Main E. 11th St. Sewer.....	19.65	
	U. P. Frt. on Rotary Exhauster	46.00	
	Miller & Shepherd H'ng Lamp		
	heads	6.70	
	Newcomb & Co. Lumber.....	29.66	
	Rotary Exhauster	7.75	
			1,177.98

1884.

Construction	Frts. B. & M. on 4" pipe.....	140.62
	" 4" pipe	149.05
	" on valves	1.35
	" on pig lead.....	2.25
	" John Meanor	2.60
	W. M. Granger.....	9.65
	D. Kitchen	3.05
	Casting mains	1.00
	" "	3.00
	Pig lead	41.80
	Hauling Pipe	1.50
	W. M. Granger.....	9.45
	Frts. on oakum.....	.80
	Carting pipe .....	.50
	Valves & Oakum.....	34.60
	David Kitchen	10.10
	W. M. Granger.....	10.90
	Frts. on Pig Lead.....	2.20
	Hauling Pipe	1.50
	David Kitchen	1.75
	Hauling Pipe	3.00
	W. M. Granger.....	9.65
	Creamer hauling pipe.....	1.00
	" " .....	.75
	Dubois "	1.50
	Granger & Kitchen.....	10.50
	David Kitchen	8.30
	Shephard, hauling pipe.....	1.50
	W. M. Granger.....	10.50
	Hauling Pipe	2.50

7—408.

1884.

Construction:

L. Baker contract.....	405.65
Pig Lead	41.08
Kitchen & Crosby Co.....	3.50
Frts. on 2" pipe.....	33.70
" " 6" "	19.20

415

Construction:

L. Baker contract.....	114.00
Express & Cartage.....	1.75
Kitchen & Crosby.....	8.10
Miller, cartage .....	.25
Byrum, cartage .....	.50
B. & M. Frts. on pipe.....	1.90
Kitchen & Crosby.....	6.20

A. L. Strang valve.....	11.25
Nat'l Tube Works St. Louis.....	253.74
" " " Chicago.....	158.26
L. Baker 48½ rods.....	48.50
Kitchen & Higgins.....	18.90
Frt. on 3" pipe.....	10.20
Shickle H. & Howard 4".....	213.13
Higgins & Byram.....	2.10
E. S. Abbott, lead.....	9.36
D. Kitchen	1.60
6" pipe & return bends.....	185.85

3,233.36

1885.

Construction:

Shickle, Harrison & H.....	4.02
Nat'l Tube Works.....	62.93
D. Kitchen	7.90
Put Bartley	2.62
Frt. on pig lead.....	1.50

416

Kitchen and men.....	37.15
J. Long, cartage.....	.25
Rotschild .....	.35
Kitchen and men.....	66.45
Chas. Brown, cartage.....	.50
Kitchen and Men.....	60.10
John Mohr	14.50
Dennis Long & Co.....	392.90
Pig lead	26.36
John Dorsey	3.35
Lee Mayfield	7.50
John Mohr	1.60
Kitchen & Men N St.....	25.54
John Crosby .....	.45
Kitchen & Men N St.....	48.30
M. Richardson "	2.25
Kitchen & Men "	16.00
Humphreys tar rope.....	4.50
Tracing plans	2.00
Wm. Keller	2.00
"	7.00
John Mohr	7.50
Making piers	2.50
John Mohr	4.50
Breaking stone	1.25
Beach scraping	2.25
Kitchen & Men.....	31.50
D. Kitchen	11.40
Granger, Kitchen & Dorsey.....	29.80
Frt. on stone.....	26.55

Men w'kly wages.....	66.87
Breaking stone	1.00
Chicago L. Co. cement.....	80.10
Geo. W. Blake.....	80.00
Day laborers, Kitchen.....	53.95
Keys & Bullock.....	100.00
Kitchen, cartage	6.60
D. Sullivan	3.00
Cummings, Reed & Co.....	15.85
Geo. W. Blake lead.....	39.27
Dorsey & Johnson.....	1325.

8—409.

1885 (Continued).

Construction:

H. C. Myers, cartage.....	.25
Keys & B. Stone.....	70.30
R. S. Young sand.....	38.47
D. L. Graham Cont.....	1,200.00
Stevens Bros. ".....	760.00
Chicago L. Co. cement.....	8.05
Day Labor Kitchen & C.....	75.05
D. Cashman .....	.75
Reddy & Pearson.....	3.05
John Mohr	3.15
Stout stone	22.40
Stockwell brick	40.80
Kerr Murray Mfg. Co.....	3,250.00
Hayden Plain Wire.....	3.05
Granger, Dorsey & Co.....	31.50
D. Kitchen	3.50

417

James Robinson	11.00
John Dorsey	9.65
4" pipe Mc. & M.....	14.56
Kitchen & Dorsey.....	19.10
Albright, cartage .....	.50
Kitchen McC. & Dorsey.....	23.10
Frt. on pig lead.....	1.25
Chicago L. Co. cement.....	11.40
Rivets for Roof.....	2.19
10" pipe and fittings.....	157.17
10" hub valve	30.67
Pig lead	26.88
Frt. on pig lead.....	1.60
D. Kitchen	9.45
Keys & B. cut stone.....	45.00
Baldwin Bros.	36.09
R. S. Young sand.....	10.12
W. J. Coohar.....	95.70

Cement	3.80
Hedges use of punch.....	10.00
W. B. Hughes	20.00
Fr. station meter fittings.....	12.50
Connections for "	174.60
(Continued) Connections Holder & Scrubber	50.92

7,609.33

1886.

Construction:

Chicago L. Co.....	82.88
Keys & B. stone.....	2.50
H. J. W. Exp. to Min.....	36.30
Kitchen & Mastrom.....	16.65
Drayage, Freight & digging.....	6.15
Wm. Granger	6.00
Fr. on pig lead.....	19.52
Pd. Men G, 17th & N St. main.....	327.36
Wm. Granger	5.25
Car sand	22.00
Shovels & Spades.....	18.10
Demgiss & McGahey.....	12.30
4& valve	11.38
Rumsy oakum	14.25
Pig lead	198.20
Fr. on Sp.....	10.77
" " Stone	12.60
Kitchen & Bostrom.....	18.50
Pd. Men & Cartage.....	210.67
G. M. Walch 5 weeks.....	100.00
Fr. & G. M. Walch.....	30.07
Sundries	250.00
Cement W. B. C. Co.....	68.00
Dennis Long & Co.....	2,563.10
Chicago L. Co. Cement.....	11.80
Stout Stone & Spades.....	34.33
2" fittings	6.84
45° Elbows	11.25
G. M. Walch.....	20.00
Stone Foundation	63.75
Hauling Pipe	18.30
Humphreys Spades	8.05

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418

1886 (Continued).

Construction:

Keys & B. Stone.....	51.83
Bricklayers' wages	92.25
Stockwell on brick.....	150.00

Drip boxes	7.75
Weekly pay roll.....	234.35
H. Cole	29.50
G. M. Walch.....	20.00
Sundries, wages etc.....	248.95
Stockwell brick	250.00
Keys & B. stone.....	71.35
G. M. Walch.....	20.00
Zehrunge & Dunn.....	8.90
Korsmeyer Co.	2.00
Citge. & Weekly wages.....	130.50
“ “	104.40
R. S. Young, sand.....	82.90
Zehrunge, nails	5.50
Buckstaff, lumber	23.13
Whitebreast Co. Cement.....	75.30
Fisher & Westover.....	12.47
Lime & Cement.....	80.62
Jno. Beardmove	13.50
Humphrey Bros.	7.10
Bricklayers	107.00
Dean & Horton.....	146.70
Knisely & Miller Slate.....	356.00
Wm. Smith, bricklayer.....	4.50
Sundries	131.65
Stockwell on brick.....	150.00
National Tube Works.....	20.58
Jackson & Pasby.....	1.25
Sundries	258.78
Ch. Lumlen Co.....	100.83
Whitebreast Co.	17.00
Frt. on 2" pipe.....	32.90
12th St. main.....	42.70
Frt. on 10" pipe.....	23.30
J. E. Stockwell on acc.....	70.40
E. Kearns on acc.....	50.00
Slate nails	2.80
D. Baum & Sons.....	8.55
Henry Cole	12.50
Shickle H. & H. 10" pipe.....	35.45
J. J. Cummings.....	7.50
Dean & Horton.....	84.45
Hahn bricklayer	47.25
Sundries	145.35
National Tube Works.....	240.95
Dennis Long & Co.....	106.63
Frt. on 4" pipe.....	23.25
E. Kearns	50.00
Sundries	114.30
“	242.40
Fisher & Westover.....	36.90

Lime & Cement.....	83.80
Stockwell brick acc.....	50.00
Remping & Bollen.....	35.25
Zehrung & Hindle.....	4.18
Chicago Lumber Co.....	42.15

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D. Baum & Sons.....	15.35
Cooper & Cole Bros.....	52.96
Zehrung & Dann.....	5.75
Parker R. & Co. 3 benches 6's.....	1,777.69
Stacey Mfg. Co.	2,614.00
Schickle H. & H. 4" pipe.....	116.35
R. S. Young, sand.....	35.07
Badger Lumber Co.	5.00
National Lumber Co.	173.69
" " " ".....	5.00
E. Kearns, bal.....	49.08
National L. W. Co.....	12.52
National Lumber Co.	19.39
P. & A. Condenser.....	715.00
Weekly wages to men.....	106.00
Williams copper wire.....	14.91

10—411.

1886 (Continued).

Construction:

Stockwell on fuel.....	26.40
Benj. Hahn	20.60
Frt. Washer scrubber.....	13.45
Sundries	99.05
"	97.27
C. E. Hedges	8.00
Baum & Sons.....	8.90
J. Roberts smoke stack etc.....	60.52
Young sand	6.08
Cement	3.40
Sundries	79.65
National Lumber Co.	7.33
Frt. on Washer-scrubber.....	165.60
F. E. Newton.....	10.03

15,163.34

1887.

Construction:

Hacker Bros.	158.45
D. L. Graham	46.00
Jno. Lingvall	2.40
Frt. on 3 cars pipe.....	267.78
Chattanooga pipe	1,461.13
Weekly wages to men.....	63.35
" " " ".....	174.30

Omaha lead	210.40
Dingess & McG.....	50.50
Weekly wages	142.60
W. S. W. E. & P. Co.....	25.50
Dennis Long & Co.....	1,688.27
Weekly wages.....	124.75
“ “	143.25
“ “	157.67
“ “	7.50
Shickle H. & H.....	17.25
Sundries	423.85
Oakum & Pasley.....	15.35
Smith & Sayer bolts.....	2.75
Valve & Plugs.....	22.63
Washer scrubber	2,352.15
Weekly wages to men.....	142.55
Shickle H. & H. drip boxes.....	10.92
Omaha Iron bolts.....	2.65
Weekly wages and sundries.....	506.00

420

Drip boxes	16.47
Paxton & Vierling.....	13.24
Rundle & Lawlor.....	27.50
Johnson & Hansen.....	23.65
E. G. Pasley.....	3.25
Sundries	429.60
U. S. W. E. & P. Co.....	4.89
Weekly wages to men.....	424.65
Badger Lumber Co.	14.57
C. E. Hedges.....	47.00
Stonemasons	15.00
Jno. W. Blead.....	8.75
Weekly wages to men.....	160.45
Stockwell brick	71.40
U. S. E. & P. Co.....	10.10
Frt. on Omaha Castings.....	10.80
Smith bricklayer	9.62
O. Sef Larsen.....	23.45
Weekly wages to men.....	166.95
Difference in boilers.....	203.54
C. Vass	9.80
Sundries and wages.....	229.05
Badger Lumber Co.....	42.83
C. E. Hedges.....	40.93
C. C. Munson.....	27.60
Cement	7.20
Nebr. Planing Mill.....	29.85
Paxton Vierling Co.....	484.50
Pattern for lids.....	12.90
Smith & Sayre.....	83.31
D. Smith	12.55
Frt. on Round Retorts.....	35.28

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1887 (Continued).

Construction:

Tugate & Hunt.....	11.00
Sundries	123.55
M. Wilson	8.00
J. E. Stockwell.....	78.60
Parker-Russell & Co.....	127.50
C. E. Hedges	30.47
H. J. Bill in full.....	353.50
Wm. Lawlor	33.75
Dean & Horton.....	78.64
Shickle Harrison & H.....	149.10
C. C. Munson & Co.....	15.48
R. L. Smith.....	29.35
Paxton-Vierling I. Wks.....	59.70
Parker R. & Co. setting bench.....	371.20

12,390.47

1888.

Construction:

National T. Wks. 1 Car.....	1,101.52
Freight on pig lead.....	3.07
Weekly wages to men.....	103.30
“ “ “ “	269.10

421

Pig Lead	153.30
Dennis Long & Co.....	161.45
G. M. Walch.....	15.00
Sundries	705.55
Jno. Rankin	7.80
Sundries	289.10
F. Friber	6.10
G. M. Walch.....	20.00
Sundries	541.20
Dean & Horton.....	79.88
G. M. Bartlett.....	5.25
G. M. Walch.....	20.00
Shickle Harrison & H.....	58.60
Sundries	304.95
“	1,308.35
Transfer Co.	13.50
Sundries	284.95
“	176.55
“	483.80
Dean & Horton.....	46.68
Cooper & Cole Bros.....	174.30
Keys & Bullock	4.00
Weekly wages to men.....	156.85
Sundries	498.42
Cooper & Cole.....	37.92

Keys & Bullock.....	11.47
Freight on pipe.....	58.71
" drip pipe.....	7.60
Freight New Plant.....	7.80
Dean & Horton.....	45.93
Frt. on fire brick.....	61.74
1¼ pipe N. T. W. Co.....	531.89
Frt. on Blower & Engine.....	44.24
Hooper team scraping	10.90
Frt. on New Plant.....	46.80
Sundries	220.35
Keys & Bullock.....	23.15
H. J. Johnson.....	1.40
Frt. on New Plant.....	84.15
Sundries	431.95
W. J. Cooper & Co.....	263.87
Hooper team	18.30
Dean & Horton.....	37.53
Sundries	442.25
J. W. Hawkins.....	20.00
Hooper team	7.50
Pat Means, grading.....	84.80
Keys & Bullock	58.21
Weekly wages to men.....	283.65
Sundries	751.82
Cooper & Cole Bros.....	31.25
Dean & Horton.....	228.07
Neb. Planing Mill.....	9.10

12—413.

1888 (Continued).

Construction:

R. S. Young, sand.....	35.00
Sundries	169.50
" 	368.35
Crawford, mason	15.00

422

George & Co. Iron Roof.....	42.65
Cement	37.45
Cooper & Cole Bros.....	676.29
Badger Lumber Co.....	28.52
Neb. Planing Mill.....	48.02
N. G. L. & F. Co.....	9,000.00
Extra moving Machinery.....	.....
Changed plans	100.00
Wiedeman & Rywater slates.....	200.00
Sundries	254.45
Walch, Carveth & Frelen.....	70.15
Wages to men.....	223.25
Sundries	3.75

"	494.40
R. S. Young, sand	47.00
Hammell & Dignan	5.25
Cooper & Cole Bros.	111.18
Keys & Bullock	8.63
Weekly wages to men	145.45
Hemmell & Dignan	13.50
Stockwell, <i>birek</i>	223.55
Weekly wages to men	131.25

 24,261.65

1889.

Construction:

Sundries	206.00
W. J. Cooper & Cole Bros.	88.22
Roberts pump and repairs	130.00
Hiltner, fire repairs	111.84
Humphrey Bros.	8.71
Badger L. Co.	38.78
Palmer Way	50.80
Chicago L. Co.	31.75
Hart Hardware Co.	100.00
Crawford, Mason	17.00
Cooper & Cole Bros.	49.74
Wm. Garsn	44.00
C. C. Munson & Co.	100.64
F-re brick	26.15
Korsmeyer Co.	3.60
Cooper & Cole Bros.	27.65
Sundries	171.40
Dean & Horton	70.98
W. J. Cooper & Cole Bros.	41.13
Sundries	136.50
"	181.25
Pig lead & Frt.	80.74
Parker, Russell & Co.	240.12
Patent Jointer	3.50
Shickle H. & Howard	610.36
Sundries	303.20
Cooper & Cole Bros.	78.59
E. F. Owen caulker	6.75
Frt. on 10 bbls. clay	11.27
Sundries	299.30
E. F. Owen, caulker	1.15
Sundries	13.30
"	104.80
Cooper & Cole Bros.	28.91
Shickle Harrison & Howard	900.00
Frt. on stop boxes	4.95
N. G. L. & F. Co.	47.50

423

Wages to men.....	122.20
D. Kitchen	8.15
Sundries	49.95
G. M. Walch.....	20.00
New Water Grate.....	20.00
Cooper & Cole Bros.....	44.90
Dean & Horton.....	13.15
Weekly wages	57.15
" "	61.90
" "	81.61

13—414.

1889 (Continued).

Construction:

Weekly wages	74.25
Cooper & Cole Bros.....	254.97
Dean & Horton.....	23.55
Smith new pump.....	175.00
Sundries	88.45
Weekly wages	113.40
Sundries	125.90
Cooper & Cole Bros.....	120.49
Sundries	111.20
"	206.40
"	187.52
8" valve	30.13
Whitebreast cement	6.50
City Engineer, Guarantee.....	20.00
Dean & Horton.....	83.93
Weekly wages	52.50
" "	48.75
" "	103.41
W. J. Cooper & Cole Bros.....	242.18
Door frame & valve.....	16.30
Contract for Cupola No. 2.....	2,500.00
Weekly wages	50.35

9,650.72

1890.

Construction:

Cooper & Cole Bros.....	49.51
Dean & Horton.....	8.93
Weekly wages for men.....	33.60
Cooper & Cole Bros.....	43.85
Dean & Horton.....	8.07
Rep'g N St. Main.....	23.25
W. J. Cooper & Cole Bros.....	30.35
Sundries	110.25
Cooper & Cole Bros.....	18.32
Sundries	120.05

N. G. L. & F. Co.....	23.52
Sundries	251.47
W. J. Cooper & Cole Bros.....	285.88
Sundries	166.11
Dean & Horton.....	267.22
Cooper & Cole Bros.....	90.82
J. W. Hedges.....	8.35
Sundries	254.85
Parker 1¼ pipe	15.20
G. M. Walch.....	25.00
Omaha Pig Lead.....	95.47

424

Sundries	97.40
"	305.35
Dean & Horton.....	112.57
W. J. Cooper & Cole Bros.....	242.60
Nicholls Roofing Co. tar.....	6.00
G. M. Bartlett pipe.....	7.45
Sundries	196.95
Jno. Boyce	2.00
Wages to men on St.....	35.05
Dean & Horton.....	27.67
Rose & Funke & Ogden.....	8.55
Cooper & Cole Bros.....	192.84
Nicholls, tar	6.80
Smith 4. Sherman .50.....	4.50
Wages to men on street.....	44.35
Cooper & Cole Bros.....	77.24
Watkins Jointer	23.50
Voss & Kitchen	15.75
Bartell, Shepherd & Bartlett Ctg.....	1.85
Geo. Frager	2.71
Int. on St. Governor.....	24.68
Johnson, Clasum & Lawlor.....	14.88
Wilson & Long Ctg. & Oil.....	1.60
Wages to men on street.....	87.80
Manson, Block & Ctg.....	16.85
Dennis Long & Co.....	1,423.10
Poska Ctg. ....	.50
Freight on Pig Lead.....	6.00

14—415.

1890 (Continued).

Construction:

City Water & Cartage.....	5.90
Omaha Pig Lead.....	204.40
Connolly St. Governor.....	875.32
Dennis Long & Co.....	506.52
" " "	356.39
Wages to men.....	59.35

Dennis Long & Co.....	456.43
Cooper & Cole Bros.....	330.32
Dean & Horton.....	38.74
Fisher & Westover.....	16.85
Freight on Oakum.....	2.15
Wages to men.....	161.96
Neb. Boiler Works.....	118.00
Dennis Long & Co.....	459.14
Rumsey Mfg. Co.....	56.30
Vroorman Moore & M. Co.....	13.50
Freight on Fire Clay.....	2.15
Dean & Horton.....	5.60
Cash to Men.....	201.20
Dennis Long & Co.....	432.49
Brown, Wilson & Hitchcock.....	18.50
Freight.....	.75
Weekly Wages to Men on Ditch.....	231.05
Stephenson cartage, telegram.....	1.15
Dennis Long & Co.....	450.07
S. A. Woods, etc.....	5.00
Rothschilds, cartage.....	.25
Weekly wages to men.....	249.25
Hayes \$9.00 Wilgarger .25.....	9.25

425

Pomerene & Cooper.....	2.60
Weekly wages to Men.....	212.60
Cooper & Cole Bros.....	194.97
J. H. Harley.....	5.25
R. S. Young.....	109.63
Rudge & Morris.....	17.47
Neb. Boiler Works.....	38.00
Rolland & Beck.....	16.65
Parker, Russell & Co.....	5.00
Planing Mill.....	4.10
Dean & Horton.....	7.50
R. L. Smith.....	5.65
Humphrey Bros.....	3.70
C. E. Hedges.....	79.30
Weekly wages to men.....	246.47
Carveth & McGee, Cartge.....	3.37
Weekly wages to men.....	235.55
Fisher & Westover.....	19.75
Neb. Boiler Works.....	119.50

Block 79.

Hammel men & teams.....	187.65
Men at Well & Cartge.....	21.00
Carey ".....	7.00
Harsch dirt.....	22.85
Weekly wages, teams <i>tec</i>	508.65
Roberts boiler.....	50.00

Chr. Lumber Co.....	44.78
Moniere & Kifer teams.....	14.55
Sundries	465.65
“	5.75
Frt. on Car Cement.....	64.18
“	73.50
Wages to men.....	224.45
Henry & Coatsworth.....	40.56
Rudge & Morris.....	20.70
' & M. R. R. Co. Piling.....	91.39
Dandas & Son driving piling.....	89.80
W. B. Wolcott.....	4.47
Broken Stone	290.97
Sand	42.00
Humphrey Bros.	10.55
Wages to men.....	137.65
Stockwell brick	1,947.68

15—416.

1890 (Continued).

Block 79.

Wages to men.....	296.90
Wilson dif. in boiler.....	36.50
Weekly wages to men.....	146.85
Walsh & Boyle.....	29.50
Wages to men at tank.....	186.25
Morris Wilson on acc.....	50.00
Whitebreast Co. Cement.....	576.20
Chicago Lumber Co.	13.82
Fisher & Westover.....	56.45
Henry & Coatsworth.....	52.44
Lead & Oil.....	10.10
Weekly wages to men.....	276.40
Car Cement	73.50
Frt. on Car Cement.....	59.00
Pomeroy Co. “	208.35
“ Sand.....	112.00

426

Pomerene Co.	5.75
Dean & Horton.....	5.60
Wages to men.....	262.75
Case F. & M. Co.....	112.50
Shean, cartage .....	.50
Woodcott Schmittel Basselin	8.15
J. P. Walton.....	10.00
Pd. Men at Tank.....	123.50
Wages to men at tank.....	181.80
H. Lathrog	3.27
Iron bands	117.80
G. M. Walsh & Oil.....	25.25

McMillan & Burk.....	28.40
Capital Machine Co.....	2.50
Cement & Sand.....	197.50
Stockwell Brick	47.36
Fisher & Westover.....	23.61
Chicago L. Co.....	28.90
Whitebreast Cement	317.90
Young Sand & Cement.....	499.65
Humphreys Hdw. Co.....	22.65
Wages to men.....	83.75
Templates	5.50
New boiler head.....	33.00
Stephens Bros., cement.....	1,325.25
Stephens Bros. Gov. house.....	102.60
Stephens Bros. Carpentering.....	32.05
Stacey Contract	1,263.00
Hiltner & Woods.....	43.90
Pomeroy, Cement	54.65
Henry & Coatsworth.....	413.93
Wilson, Reppg. Boiler.....	10.62
Construction Gas Meters since June...	676.00
Desk and carpet.....	103.38
Dennis Long & Co.....	1,742.87
B. & M. Fence Paste.....	35.63
J. E. Stockwell Brick.....	58.50
Weekly wages to men.....	309.08
Tyler coping ctone.....	385.31
Frt. & Cartage.....	5.20
Morris Wilson Bal.....	100.00
Neb. Boiler Works.....	29.52
Weekly wages to men.....	268.90
Stephens Bros. Setting Boiler.....	43.65
“ “ Extra concreting	160.00
“ “ Walling Well	10.50
“ “ Bricking I. & O. Pipe..	47.30
O. W. Wilister etc.....	7.25
Rudge & Morris.....	11.02
Sherman & Swanson digging.....	20.32
Cooper & Cole Bros.....	195.84
M. L. Hiltner.....	30.00
R. S. Young, sand.....	23.76
Fisher & Westover.....	13.73
Henry & Coatsworth.....	17.60
Dean & Horton.....	93.29
Western Mfg. Co.....	38.88
Coal for Steamer.....	9.55

426½

16—417.

1890 (Continued).

Construction:

Stoughton & Hedges.....	6.63
J. E. Nash.....	3.25
Express on 10 lt. meters.....	1.35
Griffin meters	194.40
I. B. Potts.....	8.25
2 drip boxes.....	29.40
2/6 for fence.....	36.95
Frt. on pig lead.....	3.05
Oil sprayer	6.40
Weekly wages for men.....	217.84
Sullivan Hauling pipe.....	7.00
Burns Pump 64 days.....	32.00
Turner digging	1.60
Coal for steamer.....	21.30
R. L. Smith.....	1.20
Wilcox & Mohr, etge.....	3.10
Coal for steamer.....	7.65
John Huberlan	28.00
Oil for lanterns.....	4.15
Freight on lead pipe.....	.70
Holmes brick	64.00
Weekly wages for men.....	322.46
Car tickets & engineer's fees.....	1.25
Telegram & Coal Oil.....	1.50
Carting service .....	.25
Pig lead	101.10
Dean & Horton, pig lead.....	94.12
Rothschilds etc.	1.25
Shelcoffs & Ecks.....	7.90
Hiltner building fence.....	42.00
Ceiling roof	7.00
Weekly wages to men.....	323.08
Dennis Long & Co.....	1,619.07
Frt. on Oakum.....	1.33
Tile Dennis Long & Co.....	.90
Latham, Yonkey & Broderick.....	7.00
Weekly wages to men.....	205.30
H. Jansen	1.80
Dennis Long & Co.....	434.99
Frt. on Meters.....	8.45
Young, hauling etc.....	6.00
Lord, hauling dirt.....	2.00

43,301.28

1891.

Construction:

Baldwin Bros., Sullivan.....	9.45
H. W. Brown, S. E. Moore.....	4.35
Cooper & Cole Bros.....	257.97
Rudge & Morris.....	16.08
Dean & Horton.....	58.14
J. H. Harley.....	11.00
Fisher & Westover.....	20.15
Chicago Lumber Co.....	173.63
Coal for Steamer.....	15.30
Weekly wages for men.....	260.41
Pomerene Co. & Tibball & Co.....	1.10
Telegram for D. E. T.....	.65
Pomeroy Concrete & Cement.....	3.45
Paint & Color Co.....	32.15
Funke & Ogden.....	3.00
Wages to men.....	20.00
Setting Blocks	2.00
Freber & Hansen.....	14.35
D. Kitchen	7.85
Eck & Voss.....	15.40

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Seafman & Rose.....	10.10
Korsmeyer & Co., bal.....	8.72
Mohr, cartage25
H. C. Babcock.....	5.00
Vaporizer N. G. L. & F. Co.....	100.50
Rumsey & Co. Frt. on meters.....	12.55
Car 4" pipe.....	433.09
Freight on lead pipe.....	1.36

17—418.

1891 (Continued).

Construction:

Pomeroy cement & concrete.....	3.65
Cartage .....	.85
Cooper & Cole Bros.....	52.85
Dean & H.,—Mohr.....	2.15
Rolland & Beck.....	10.50
C. U. Whedon.....	100.00
L. M. Rumsey, Mfg. Co.....	36.64
J. J. Griffing & Co.....	185.17
Oil paper & car tickets.....	.75
Pomeroy Cement & Concrete.....	76.93
Kitchen & Car tickets.....	2.00
Freight on cart'e of meters.....	4.20
Anderson & P. Mill.....	4.75
Voss, Kitchen, Swanson, Johnson.....	12.15
Frt. 3 cars pipe.....	161.07
" 1 " "	49.75

D. Kitchen	1.50
Cooper & Cole Bros.....	25.26
Frts. on car pipe.....	53.93
“ “ 2 cars pipe.....	110.66
R. S. Young, concrete.....	18.51
Frts. on pig lead.....	9.91
McMillan & Youngey	25.25
Frts. on 3 cars pipe.....	157.74
“ 1 “ “	48.09
“ 4 cars pipe.....	199.26
“ Omaha pig lead.....	255.02
J. J. Griffin & Co.....	212.27
Frts. 2 cars pipe.....	112.01
“ 1 “ “	55.99
“ 1 “ “	52.75
Hauling pipe	5.00
Geo. McMillan	19.50
Frts. on car pipe.....	43.73
Poska cartage .....	.50
Rothschilds .....	.25
Weekly wages to men.....	213.83
Frts. on 2 cars pipe.....	94.53
“ “ #601 Pipe	42.43
Gaston & Peterson.....	5.25
Frts. on 2 cars pipe.....	84.42
Paving brick	12.00
Kitchen & Plunger.....	3.25
Wages to men.....	13.05
Frts. #1944 pipe.....	49.39
Weekly wages to men.....	273.08
Frts. on pipe S. J. A.....	150.00
“ “ “ #4004	50.37
Wages to men on ditch.....	15.30

428

Block 79.

C. E. Hedges.....	36.90
Poska Cartage .....	.50
Weekly wages to men.....	54.06
C. E. Chowins, windows &c.....	120.05
Barrett cartage .....	.75
Fred Beck .....	.85
Redding & Cartage.....	2.35
John Mohr	1.00
Wages to men.....	7.70
P. Nolan	1.00
Fisher & Westover.....	69.40
Jas. Conlon .....	.75
Chas. E. Chowins.....	75.00
W. H. Tyler, switching stone.....	2.00
B. & M. Lumber.....	7.98

M. L. Hiltner.....	100.00
Tel. about water pipe.....	.75
Forburger & Co.....	50.00
Brown & Hahn.....	13.75
M. L. Hiltner on account.....	100.00
Frt. on fire clay.....	13.20
Kruse & White.....	28.65

18—419.

1891 (Continued).

Construction:

Block 79.

G. S. Kelly & Co.....	19.80
M. L. Hiltner.....	75.00
Weekly wages to men.....	61.00
Fisher & Westover.....	382.79
Chicago L. Co. In account.....	800.00
R. S. Young cement.....	5.38
Parker, Russell Mfg. Co.....	25.00
Wages to men.....	35.75
M. L. Hiltner.....	100.00
Chas. E. Chowins.....	50.00
Switching boiler	3.00
Catlin & Fawell.....	3.85
Switching boiler	3.00
W. H. Tyler cut stone.....	237.00
Weekly wages to men.....	61.75
Nichols Roofing Co.....	200.00
Forbenger & Speidell.....	35.00
Barrett, Dess, Sheffen.....	3.60
Frank Burk	6.00
Frazer, Carveth & Mohr, cartge.....	3.10
Weekly wages to men.....	152.10
M. L. Hiltner.....	100.00
G. Miller	10.40
McIntyre & Leavett.....	14.00
Poska & Barrett <i>cartage</i>	2.00
Weekly wages to men.....	130.30
Perry Hahn	4.00
C. A. Bonnell.....	10.50
M. L. Hiltner.....	100.00
Kreuse & White.....	20.45
Cooper & Cole Bros.....	34.46
Telephone	5.50
Chicago Lumber Co.....	500.00
Hooker, & O. Weidemann & Co.....	2.25
Downe & Baldwin Brothers.....	9.40
Rudge & Morris.....	42.25

G. A. Downing.....	43.95
Fisher & Westover.....	59.32
Falls Rivet & M. Co.....	14.40
Weekly wages to men.....	90.35
Nichols Roofing Co.....	100.00
M. L. Hiltner.....	100.00
C. E. Hedges.....	13.63
Morris Wilcon on account.....	100.00
Lin. Transfer Co.....	4.05
Mason & Barrett.....	11.50
Planing Mill & Cartage.....	2.50
Weekly wages to men.....	98.75
Morris Wilson	246.57
Chas. E. Chowins.....	136.90
Weekly wages to men.....	68.50
M. L. Hiltner in full.....	220.00
Burgen, Kreuse & White.....	23.65
Wm. Leagham	25.00
Nichols Roofing Co.....	60.29
Cooper & Cole Brothers.....	94.23
Rudge & Morris.....	76.64
Fisher & Westover.....	35.60
John Lanham	13,289.79
Chicago Lumber Co.....	598.06
Lanham cement	85.00
Whitebreast cement	20.00
Chicago Lumber Co.....	9.60
John Lanham, foundation stone.....	524.15
L. Wm'son Hd. Oil.....	33.55
Geo. Downing Jr.....	6.79
M. L. Hiltner.....	72.87
Eckes Stone	2.52
Dean & Horton.....	56.50
Water Connections	86.36
Methews cartage .....	.35

(No No. 19.) 20—420.

1891 (Continued).

Construction:

F. Kacuer	2.25
Kitchen & Coal Oil.....	1.55
Gardner & Marshall.....	.90
3 tons Pig lead.....	246.70
Hough & Sakeuse.....	9.60
E. Magee cartage.....	1.50
Weekly wages to men.....	262.14
A. Jensen	9.19
McMillan & Miller.....	15.45
Wittman & Co.....	8.60

Youghey & Seaghman.....	55.00
Cooper & Cole Bros.....	300.00
Dean & Horton.....	6.10
Postal Tel. Co.....	3.00
Peterson & Shankling.....	5.80
Kingsfather & Calsum.....	3.65
McGrew & Kitchen.....	4.85
Hugh & Pierce.....	3.95
Rumph & Hanson.....	8.35
Geo. Downing.....	125.62
Cap. Planing Mill.....	11.50
Bohanan Bd. 4 horse.....	28.25
Brown cartage.....	.25

430

Grote & Block.....	3.05
Weekly wages to men.....	89.55
Oil, Tickets & L. D. T.....	2.30
J. Oppenheimer.....	9.00
Frt. on Holden Paint.....	2.58
H. O. Babcock & Co.....	16.20
Shickle, Harrison & H.....	408.42
American Meter Co.....	295.92
L. M. Rumsey Mfg. Co.....	27.17
Hudson & Barrett Crge.....	1.10
Coal Oil.....	.90
Brown, Moore & Fields.....	8.60
Weekly wages to men.....	112.30
Peters, Coal Oil.....	1.50
Cole Cartage.....	1.50
Yauney & Seaghman.....	60.00
McGee Cartage.....	.50
Marm 1.90 S. Carveth 2.00.....	3.90
Henry Kitchen.....	1.50
Weekly wages to men.....	78.00
John Mohr Cartage.....	.25
Dun & Shaffer.....	1.50
Frt. on Meters.....	4.70
Anderson Mohr & Drew.....	8.50
Pomeroy Coal Co.....	3.40
Drew & Miller Cartage.....	1.40
Weekly wages to men.....	28.45
Zach Hammill.....	21.00
Harding Rose Leming.....	3.90
Henry Yauney.....	30.00
Cooper & Cole Brothers.....	100.00
Pomeroy—gravel.....	2.25
Brown & Poska cartage.....	1.25
State Journal Co.....	1.05
Weekly wages to men.....	65.50
Stephenson cartage.....	.25
Dean & Horton.....	23.22

Drew Cartage	1.00
Bohanan Bros.	116.50
Rep'g Paving	2.00
Vass & Kitchen	16.10
Frt. on car pipe	51.89
L. M. Rumsy Mfg. Co.	9.88
H. W. Johns Mfg. Co.	49.50
Hudson, Williams & Barrett, etg.	1.75
Henry Youghey	30.00
Manse & Drew	4.05
Weekly wages to men on St.	72.31
Buckstaff sand	2.50
Geo. Miller, cartage .....	.50
Mullen & Smith	10.35
Weekly wages to men	76.65

21—421.

1891 (Continued).

Construction:

Brombaugh & Van Sickle	13.00
Root Repairing Paving	2.00
Van Sickle, Kitchen, Vass.	19.45
Henry Yanney	30.00
Pomeroy Coal Co.	1.12
Paint & Color Co. ....	.95
Wm. Brockmeyer	1.00
Cooper & Cole Bros.	71.37
Kitchen & Vass.	20.15

431

American Meter Co.	183.60
Shickle & Howard	418.81
Exchange	1.50
Frt. on sample stop box .....	.60
McGee & Shaffer cartage	3.50
Freeman Cartage	1.00
Weekly wages to men	56.00
Drew cartage .....	.50
Henry Young	30.00
Wm. Seaghman	25.00
Drew Mohr cartage	1.00
Weekly wages to men	44.45
Manse Lawlor & Drew	4.10
Frt. on gas meters	4.55
Weekly wages to men	72.29
Henry Yaunney	30.00
Geo. Downing Jr.	39.87
Cooper & Cole Bros.	31.00
Frt. on Gas Meters	1.75
Drew Cartage	3.00
" "	1.25

Weekly wages to men.....	82.30
Anderson, Brown & Hansen.....	6.75
Rundell & Jansen.....	4.50
D. Kitchen	2.60
Weekly wages to men.....	12.00
Drew Cartage	2.00
Henry Yauney	30.00
Carveth, cartage	1.25
Keystone & Mettle Co.....	75.00
Weekly wages to men.....	140.50
Drew cartage .....	.35
Brown & Gifford.....	6.15
Weekly wages to men.....	145.15
Barrett cartage	2.00
Tel. for gas bags.....	.50
Henry Yauney	30.00
Cooper & Cole Bros.....	40.00
Wages to men.....	15.20
Oil for lanterns.....	.70
R. S. Young.....	10.50
Barrett cartage .....	.50
Weekly wages to men.....	75.45
Frt. on meters.....	3.70
Barrett & Tubbs.....	1.75
J. Ruth	4.65
Mohr Hartzell & Brown.....	11.00
Weekly wages to men.....	100.40
Marshall cartage .....	.75
Rose, Carveth & Poska.....	4.05
Frt. on lead pipe.....	1.65
Krumer, Snyder & Lawlor.....	13.00
Henry Yauney	30.00
J. J. Griffen & Co.....	217.72
Coal Oil .....	.50
Weekly wages to men.....	50.25
Mohr & Drew Cartage.....	3.50
C. Anderson & Baldwin Bros.....	2.40
Knox Carlson & —	7.65
Freight on the L. Meter.....	2.20
Weekly wages to men.....	24.10
Hudson, Fager & Drew.....	1.50
Drew Cartage25
J. A. Marshall.....	300.00

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22—422.

1891.

Construction:

Ryan, cartage	2.00
Henry Yauney	30.00
City permits & cartage.....	3.75

34—83

John Eck	9.53
Frt. on lead pipe.....	.60
Young & Morton.....	9.20
Cooper & Cole Bros.....	40.00
Kitchen & Mohr.....	9.00
E. B. Hyde.....	4.50
Car tickets & cartage.....	2.50
American Meter Co.....	234.20
Rumsey Mfg. Co.....	39.28
H. C. Babcock & Co.....	6.50
Exchange	1.60
Dres, cartage .....	.50
D. Kitchen	7.35
Henry Yauney	30.00
Barrett, Drake & Holmes, cartage.....	2.00
Exp. on 30 lt. meters.....	2.00
Furney, cartage .....	.35
Kitchen & Hoppinger.....	12.15
Young, cartage	3.75
Frt. on create meters.....	4.44
Nedick & Barrett.....	1.45
Drake & Dres, cartage.....	1.50
Kitchen & Hopfinger.....	13.50
Potson, sand .....	.25
Hartzell & Barrett.....	4.15
Henry Yauney	30.00
Digging & Lunches.....	2.50
Cooper & Cole Bros. set tools.....	12.00
Root & Taylor.....	7.00
Cooper & Cole Bros.....	41.70
Weekly wages to men.....	21.00
Fager & Glover, cartage.....	1.75
Weekly wages to men.....	23.50
C. E. Hedges.....	29.03
Brown & Drake, cartage.....	.75
Henry Yauney	30.00
Weekly wages to men.....	12.00
Paving permits	2.00
Drake, cartage .....	.50
J. Hopfinger	6.00
C. Vass .....	.75
Drew, cartage .....	.50
L. D. T.....	.25
Drake & Drew.....	1.35

 48,429.26

1892.

Construction:

Young & Downie.....	12.75
Weekly wages to men.....	33.50
John Roberts	4.00
Henry Youney	30.00

C. E. Hedges.....	15.13
Frt. on lead pipe.....	.60
Pd. by Lawlor.....	1.25
Cooper & Cole Bros.....	56.64
Brambrough & Drew, cartage.....	2.90
City permits & Hopfinger.....	4.00
City permits.....	1.00
J. S. Parks.....	.75
American Meter Co.....	199.80
Rumsey Mfg. Co.....	6.79
Frt. on Meters and Car tickets.....	7.10

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Columbus Maggard.....	605.00
Henry Yauney.....	30.00
Fisher & Westover.....	10.14
City Permits.....	1.00
Cooper & Cole Bros.....	30.00
Dean & Horton.....	.60
Buckstaff, sand.....	2.50

23—423.

1892 (Cont'd).

Construction:

Henry Yauney.....	25.00
Frt. on lead pipe.....	.85
Henry Yauney.....	23.45
Fisher & Westover.....	5.94
Cooper & Cole Bros.....	11.36
Rudge & Morris.....	3.00
Metal Gas Tips.....	3.85
Lawlor Expense East.....	55.00
D. E. Thompson expenses East.....	30.00
“ “ “.....	66.75
City Permits.....	1.00
Storm cartage.....	.50
Erickson car tickets.....	1.00
Rumsey & Co. lead.....	12.26
Knight & Drew, cartage.....	2.00
Drew, cartage.....	.75
Perry Hohn.....	6.00
Henry Yauney.....	25.00
Shaffer, cartage.....	.75
Drew, cartage.....	.50
Lawlor expenses to Dayton.....	55.00
Drew, cartage.....	.75
Henry Yauney.....	25.00
Postal Tel. Co.....	6.80
C. E. Hedges.....	5.65
Whitebreast Coal Co. cement.....	3.40
Express on Rubber bags.....	.25

Weekly wages to men.....	69.25
Cooper & Cole Bros.....	50.00
Drew & Barrett, cartage.....	1.20
Drew cartage .....	.75
Weekly wages to men.....	116.15
Frt. on one beam W. L.....	20.00
Drew cartage .....	.50
Frt. on car pipe.....	78.32
American Meter Co.....	208.08
Goodrich Rubber Co.....	5.04
Lawlor car tickets.....	.50
D. E. T. Expenses.....	34.40
Weekly wages to men.....	73.35
Henry Yauney	25.00
Barrett, cartage	1.00
Weekly wages to men.....	148.21
Wilson & Drew, cartage.....	2.95
Frt. on meters.....	3.90
E. B. Hyde.....	22.50
Wages to men.....	26.80
" "	8.80
Weekly wages to men.....	26.80

434

Postal Tel. Co.....	2.45
Chr. Lumber Co.....	6.05
Humphrey Bros.	5.80
Henry Yauney	25.00
Fisher & Westover.....	17.00
R. S. Young.....	52.09
Cooper & Cole Bros.....	99.30
C. H. Mann oil.....	.35
Fager, cartage	1.00
Weekly wages to men.....	102.75
Graham horse	6.00
Shickle harrison & H.....	381.28
D. J. Topley 17. Exchange 1.70.....	18.70
Gleason & Bailey 82¢ Exchange 20¢... ..	1.02
Weekly wages to men.....	48.25
Korsmeyer & Co.....	.85
Henry Yauney	27.50
Drew Clark Drug Co.....	1.60
E. Casteel	2.25
Weekly wages to men.....	59.25
Fager cartage .....	.75
Fager, cartage	1.00
Cooper Radiator Co.....	500.00
Weekly wages to men.....	105.05
J. Armstrong	1.65
C. & F. Wolcott.....	4.30

24—424.

1892 (Continued).

Construction:

Moore & Humphrey B.....	13.46
H. Yauney	27.50
Chi. Lumber Co.....	33.65
R. S. Young.....	45.75
Postal Tel. Co.....	2.17
Dean & Horton.....	11.12
Rudge & Morris.....	6.25
Weekly wages to men.....	99.35
C. Johnson	3.00
Cooper & Cole Bros.....	106.52
House & Graham.....	7.50
McDonald Meter	129.80
Fager, cartage	1.55
Fisher & Westover.....	15.60
Weekly wages to men.....	169.25
Gas Tips	7.40
Fisher & Westover.....	100.00
J. Waginor	6.00
Carveth, cartage .....	.75
B. & M. R. R. iron.....	9.33
Frt. on gas meters.....	5.05
Wm. Leaghman	5.00
Henry Launey	27.50
Telegram & Wire.....	2.20
Weekly wages to men.....	201.85

435

Strom, cartage .....	.35
Lin. News Co.....	14.75
Frt. on concrete	10.97
Rice & Coldwell.....	8.35
Frt. car Concrete.....	9.27
Cummins, cartage .....	.35
Frt. on Concrete.....	8.60
Weekly wages to men.....	191.40
Fisher & Westover.....	400.00
Frt. on 2 cars concrete.....	20.42
Frt. on lead pipe.....	.98
Geo. McMillan	6.50
Wages to men.....	56.55
R. S. Young.....	152.93
Frt. 2 cars rubber.....	21.54
H. M. Leavett, stone.....	21.65
Chicago Lumber Co.....	45.78
Henry Launey	27.50
C. B. Kaven & Co.....	20.75
F. A. Graham.....	18.00

Frt. on Car Cement.....	57.05
Frt. on 2 cars concrete.....	21.72
Frt. on rubber.....	18.67
Weekly wages to men.....	96.10
Postal Tel. Co.....	5.70
Frt. on Stockwell brick.....	6.00
Whitebreast Coal Co.....	24.00
Humphrey Bros.....	25.80
Telegram to Graham.....	.75
McDonald Meters.....	162.00
Exchange.....	.40
Cooper & Cole Bros.....	167.45
Rumsey & Co.....	11.14
Car Cement.....	28.82
H. C. Babcock & Co.....	4.91
E. C. Brown.....	1.00
Exchange.....	1.40
Atwood & Co.....	29.03
Barrett, cartage.....	.25
Weekly wages to men.....	147.89
Cooper Radiator Co.....	500.00
City permit G St.....	1.00
Atwood & Co.....	111.19
Frt. on car iron.....	79.24
Fager & Eddy, cartage.....	2.00
Erickson, car tickets.....	1.45
Frt. on inlet & outlet.....	7.00
Frt. on meters.....	4.80
Frt. on Stockwell brick.....	3.00
Frt. on 2 cars rubber.....	17.67

436

25—425.

1892 (Continued).

Construction:

Car Cement, Freight.....	57.05
Henry Yauney.....	27.50
Weekly wages to men.....	237.57
Lynch & Eacs, cartage.....	1.05
Telegram to D. O. N. G.....	.76
Frt. on cement.....	57.05
Frt. on 2 cars concrete.....	20.14
2 cars cement.....	59.92
Stone masons.....	371.45
Carveth, Barrett & Mohr.....	5.10
Buck & Jacobs.....	6.40
Frt. on Stockwell brick.....	6.00
Weekly wages to men.....	221.50
Buck & Pierce.....	6.40
Raismen, Brick.....	200.00
Fisher & Westover.....	500.00

Frts. on Stockwell Brick.....	6.00
Calvert, cartage .....	.50
Frts. on brick.....	6.00
Wm. Oberman .....	.96
Chas. E. Chowins.....	100.00
Weekly wages to men.....	143.19
L. Mesin, oil.....	5.95
Postal & A. Alias.....	7.55
Frts. on 16" ells.....	7.10
Frts. on pig lead.....	6.62
Frts. on lead pipe.....	1.99
Chicago Lumber Co.....	72.01
W. B. Wolcott.....	19.82
Henry Yauney	27.50
Paint & Color Co.....	48.15
F. A. Graham.....	20.00
Frts. on Brick.....	3.00
Humphrey Bros.	3.15
State Journal Co.....	.75
R. L. Smith .....	.15
John Mohr, cartage.....	1.25
Pig lead 4¢ per wt.....	160.40
Fisher & Westover.....	122.79
Weekly wages to men.....	286.00
Frts. on drip boxes.....	10.15
John Roberts	5.90
Barrett cartage & telegram.....	1.75
Rumsey & Co.....	29.03
McDonald Metes & Ex.....	162.30
Cooper & Cole Bros.....	179.14
Western Gas Const. Co.....	660.33
Cooper Radiator Co.....	19.07
B. & M. Buckstays.....	46.80
G. A. Rayner brick.....	300.00
Chas. E. Chowins.....	431.00
Chicago Lumber Co.....	414.06
Wages to men.....	287.60
Frts. on meters.....	6.00
Lin. Transfer Co.....	5.30
Frts. on brick, Stockman.....	3.00
Expense of 333 bonds.....	618.31
Com. on 333 bonds sold.....	16,397.50
Brown, cartage .....	.75
Chas. E. Chowins.....	62.18
Henry Yauney	27.50
Frts. on Brick.....	3.00

Jartner & Shaffer.....	2.00
Hohn & Hartzell.....	29.08
Weekly wages to men.....	237.00
Frts. on car cement.....	57.05

Posky cartage .....	.50
Frt. on Stockwell, brick.....	3.00
Wages to men.....	207.45
John Lanham, brick.....	10.00
Fisher & Westover.....	100.00
Lanham brick, stone, lime.....	36.50
Barrett, cartage	1.00
Wages to men.....	17.46
L. Wilson oils.....	2.25
Rudge & M. & Telegram.....	2.29
Humphrey Bros.	5.50

26—426.

1892.

(Construction:)

H. M. Leavett, sand.....	14.00
Henry Yauney	27.50
J. H. Curley	9.98
Paint & Color Company.....	36.45
Chicago Lumber Co.....	120.84
R. S. Young.....	224.80
Frt. on car lime and 2 rubber.....	27.12
Neb. Planing Mill	437.83
G. H. Atwood & Co.....	46.99
Frt. on 3591 concrete.....	10.10
Dean & Horton.....	.12
Weekly wages to men.....	184.85
W. B. Wolcott.....	11.35
B. & M. Buckstays.....	20.03
A. Fullerinton	4.20
Exchange on N. Y. draft.....	1.80
Frt. on #565 rubber.....	9.37
Whitebreast cement	9.00
Crow & Lind.....	9.85
Frt. on car rubber & Cement.....	66.20
“ “ 2 cars “ “	18.27
Two cars cement.....	62.42
McDonald Meters	372.42
F. A. Graham.....	22.00
Weekly wages to men.....	155.49
Frt. on Stockwell brick.....	3.00
Frt. on meters.....	4.45
Frt. on cupola brick.....	72.07
Wages to men.....	5.75
J. E. Stockwell brick.....	245.00
Wm. Dubois	3.75
Seghman & Yauney.....	52.50
Weekly wages to men.....	189.60
Laclede Fire Brick Co.....	3,215.00
“ “ “ cupola brick.....	513.58
Fire clay & G. Brick.....	19.75

Frt. on car pipe.....	19.75
Frt. on car pipe.....	85.80
Frt. on cupola brick.....	53.65
John Mohr cartage.....	2.25
Cooper & Cole Bros.....	100.52
R. Simmons	6.75
Frt. on meters.....	7.05
Frt. lead pipe & solder.....	1.22

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A. Peterson & Shaffer, cartage.....	5.50
Weekly wages to men.....	225.30
Frt. on Hyd. Main Extension.....	2.10
Laclede Fire Brick Co.....	22.10
Barrett & Mohr, cartage.....	2.00
Dybbro horse	90.00
Blufus & Payne.....	9.60
John Lanham	6,419.46
Yauney & Seaghman.....	52.50
H. M. Leavett.....	48.90
Burks & Cadman Buggy.....	68.00
Chas. E. Chowins.....	49.50
J. H. Harley.....	2.60
Weekly wages to men.....	239.05
Candlewick .....	.40
Hooker & Orr.....	.75
Humphrey Bros.	6.30
Frt. on car pipe.....	11.50
H. M. Leavet.....	15.70
W. B. Wolcott.....	29.84
R. S. Young.....	31.34
Rel. Omaha	1.35
Cooper & Cole Bros.....	93.27
Camp Bros.	7.50
Frt. on Meters.....	1.80
Paint & Color Co.....	62.32
F. A. Graham.....	18.00
G. P. Smith.....	5.00
Chicago Lumber Co.....	241.13
B. & M. R. R. Sawdust.....	20.20
Weekly wages to men.....	258.35
Frt. on pig lead.....	6.70

27—427.

1892 (Continued).

Construction:

Lanham, car fottings.....	36.63
Omaha pig lead.....	162.00
Shickle Harrison & H.....	473.24
Rumsey & Co.....	25.29
Exchange	1.80

John Grass	7.50
Geo. Pierce	1.50
Exchange on drafts	4.00
Morris Wilson	27.20
Gaston & Barrett	7.05
Weekly wages to men	234.08
Dean & Horton	2.13
R. Woombrodt	5.00
Yauney Stockwell, brick	3.00
City permit 17th St.	1.00
Fisher & Westover	132.12
Poska & Warmbrodt	4.50
Weekly wages to men	188.40
Chas. E. Chowins	100.00
Raymen brick	400.00
Barrett, cartage85
Express on gauges	1.35
Frt. on meters	7.70
D. Brittenstein	1.50

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Stockwell brick	154.00
B. & M. Coal shed lumber	148.23
Frt. on car brick	3.00
Weekly wages to men	157.45
Frt. on P. & A. Drum	1.13
Western Gas Const. Co.	13,125.00
“	1,724.00
W. W. Laoimer, wick .....	.35
M. Bushnell	10.00
H. Yauney & Seaghman	52.50
S. E. Moon	5.85
Davis, carpet for office	36.80
Leavett, sand	28.25
H. J. Whitmore	18.00
Young, cement	191.00
Paint & Color Co.	33.02
Wittman & Co.	3.65
Hyman, cartage .....	.50
Postal Tel. Co.	4.22
Parker & Wilson	1.00
C. E. Hedges	38.17
Cooper & Cole Bros.	325.08
Dean & Horton	23.47
John Roberts	17.25
Weekly wages to men	136.10
E. P. Gleason & Co.	20.38
American Meter Co.	162.00
Bouton Fdry. Co.	20.00
Copperas H. F. C. Co.	108.59
S. H. Atwood & Co.	127.49
Wilson, barrows	30.00

Chi. Lumber Co.....	669.65
Korsmeyer Co.	1.40
Baldwin Bros.	9.80
Weekly wages to men.....	175.45
Gloor, cartage .....	.50
Barrett, cartage	1.00
Yauney & Seaghman.....	52.50
Cunham & Hansen.....	14.10
T. J. Thorp & Co.....	1.50
Mathias & Drake, cartage.....	1.50
John Eck	6.00
Chowins, bal. on coal shed.....	240.00
Weekly wages to men.....	191.07
C. Vass	10.97
Stockwell, brick	77.00
Baker	2.70
Add. Frt. on Exhauster.....	22.44
Generator contract	1,000.00
Wall, beams & columns.....	178.50
Tees, reducer & columns.....	100.25

28—428.

1892 (Continued).

Construction:

Exhauster and condenser connections..	226.00
J. Lanham 3 cars sand.....	42.00
Jones & Laughlin, order.....	1,400.00
Wages to men.....	21.40
Weekly wages to men.....	141.05
C. O. Whedon.....	500.00
Fisher & Westover.....	36.07
D. Dennis, cartage.....	.75

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F. A. Anderson.....	3.20
Hooker & Dubois.....	12.40
Simmons & B.....	.60
Baldwin Bros.	26.00
Western Gas Cons. Bolts.....	3.50
Elec. W. Steam for syphon.....	79.50
R. S. Young, cement.....	60.59
Mrs. Withington, order.....	16.50
Henry Yauney	27.50
Wm. Seaghman	25.00
Hargreaves Bros.	2.13
Chicago Lumber Co.....	55.58
Humphrey Bros.	15.00
Car Saw dust.....	20.00
Wages to men.....	40.50
Weekly wages to men.....	212.90
New Stock Book.....	75.00

Adv. was going to move.....	19.60
Whitebreast lime	9.00
H. M. Leavitt.....	57.35
Chandler, Drake & C.....	17.60
Recording amended articles.....	2.50
Postal Tel. Co.....	3.66
Chas. E. Chowins.....	262.56
Sec'y of State fees.....	3.50
Paint & Color Co.....	9.48
Bronson & Mains.....	2.70
Dean & Horton.....	4.10
Korsmeyer Co.	1.10
Weekly wages to men.....	279.60
Fisher & Westover.....	50.79
Frt. on retort cement.....	1.20
Wages to men laid off.....	33.15
Frt. on crate meters.....	4.70
Babcock coke forks	6.38
McDonald & Co.....	225.75
H. F. Clark Drug Co.....	119.28
Cleveland & Garretson.....	9.50
Yauney & Drake.....	3.00
Cooper & Cole Bros.....	363.27
Yauney & Seagham.....	50.00
Hardner & Ward.....	22.75
Weekly wages to men.....	236.45
John Roberts	2.00
Frt. on Fire clay & brick.....	10.69
Samuel Hartzell	2.50
O. W. Vanderver.....	15.00
Lanham Cementing foundation.....	78.00
Hargreaves Brooms	2.13
Wages to men laid off.....	42.25
W. C. Jones.....	6.00
Frt. on scales.....	1.90
Frt. on lead pipe.....	2.15
Weekly wages to men.....	144.55
Morris Wilson	52.64
Barrett, cartage .....	.50
Wages to men laid off.....	43.80
R. S. Young.....	21.75
Express on gauges.....	1.10
Drake, cartage50
Weekly wages to men.....	213.35

 71,284.59

429.

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1893.

Construction:

Seaghman & Yauney.....	57.50
Chas. E. Chowins.....	121.65
Ward & Kelly Co.....	29.76
Cap. City Planing Mill.....	44.00
Moore, Loomis & Williams Co.....	9.20
Tricky & Co.....	6.00
Pomerene & Co.....	1.65
Barrett & Wilson, cartage.....	1.10
Postal Tel. Co.....	4.40
Chicago Lumber Co.....	139.31
Humphrey Bros.	11.25
W. B. Wolcott.....	110.40
Field & Holmes, Att'ys.....	50.00
Baldwin Bros.	3.30
P. Hahn	100.00
C. E. Hedges.....	46.66
City Testing Apparatus.....	200.00
Laclede Fire Brick Mfg. Co.....	72.50
L. M. Rumsy Mfg. Co.....	24.21
H. W. Johnson Mfg. Co.....	11.25
D. McDonald & Co.....	201.76
John Roberts	7.60
Weekly wages of men.....	228.05
Frt. on meters.....	4.57
R. L. Smith.....	13.20
D. E. Thompson exp. East.....	13.00
C. E. Chowins.....	100.00
W. J. Cooper & Cole Bros.....	238.39
Fisher & Westover.....	70.45
Weekly wages to men.....	164.62
Dubois cartage	11.25
Henry Yauney	27.50
Morris Wilson	210.71
Weekly wages to men.....	202.65
C. D. Mullen.....	36.30
Wages to men.....	20.25
James Young	3.00
Weekly wages to men.....	142.80
Wm. Berry	3.75
Frt. on crates fire brick.....	3.43
S. E. Moore.....	3.15
Wm. Seaghman	27.50
H. J. Harley.....	12.00
Chicago Lumber Co.....	60.75
Fisher & Westover.....	28.00

Cooper & Cole Bros.....	92.50
R. S. Young.....	17.17
Wages to men laid off.....	22.40
Express on tips.....	.75
C. D. Dubois.....	15.25
Humphrey Bros. & R. L. Smith.....	4.25
State Journal Co.	44.55
Morris Nelson	158.78
Baldwin Bros. ....	.55
Weekly wages to men.....	113.75
Mullen stamps .....	.70
Dean & Horton.....	.60
Cement	14.25
Hertman & Keyser.....	4.85
Roberts & O'Neill.....	18.55
Plastering Meter Room J. E. Phelps..	44.00
Weekly wages	120.95

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Clow & Son.....	12.06
Fairbanks scales	65.00
McDonald Meters	162.00
City Permit	1.00
Wm. Berry	3.00
Wm. Seaghman	27.50
Forge & Forks.....	24.90
Frt. on "	1.25
Weekly wages to men.....	108.35
Exchange N. Y. draft.....	5.70

30—430.

1893 (Continued).

Construction:

Wm. Berry	5.25
Frt. on fire clay.....	5.91
Barrett, cartage .....	.75
Frt. on meters.....	4.55
Weekly wages to men.....	191.75
Carrier, Loomis	10.25
Moore & Tabk Line.....	1.90
Postal Tel. Co.....	.40
Rudge & Morris Co.....	6.00
Wm. Seighman	27.50
Chicago Lumber Co.....	17.61
Journal Co.	20.00
Humphrey Bros.	5.65
Recording Deed Block 79.....	1.00
Smith & Pomerene & Co.....	8.35
Hartzell & Cunningham.....	28.00
Lincoln News Co.....	16.80
Dean & Horton.....	1.30

Weekly wages to men.....	107.50
Berry & Biggs.....	9.25
W. B. Wolcott.....	23.62
Cooper Radiator Co.	200.00
Raymonds Brooms	2.25
Wm. Berry	4.05
Weekly wages to men.....	91.90
Laclede Fire Clay Co.....	13.50
Wages to men.....	23.50
Burs & Berry.....	5.40
Shickle Harrison & H. I. Co.....	500.00
Cooper & Cole Bros.....	49.65
Wm. Seaghman	27.50
Frt. on valves.....	3.55
Hartman & Coon.....	9.45
Weekly wages to men.....	60.70
Express on —.....	.70
Poska & Barrett, cartage.....	1.50
Weekly wages to men.....	75.30
Morris Wilson	129.87
Transfer Co.	21.90
Frt. on lead pipe.....	2.95
Moore & Camp Bros.....	4.75
The News	18.90
Weekly wages to men.....	91.00
Wm. Seighman	27.50
Pmerene & Cooper	11.36
Chicago Lumber Co.	9.00
Express & Fisher & Westover.....	14.89
Postal & E. Motz.....	8.90
Humphrey Bros. & Oakey.....	4.20

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John Lawlor75
Hartshorn & Paint & C. Co.....	6.80
Herdelemen	2.70
Seighman Car tickets.....	.25
State Journal Co.....	20.50
Chas. E. Chowins.....	23.00
Shaffer & Maggard, cartage.....	1.00
Mayer Bros.	3.00
Barrett, cartage .....	.75
Weekly wages to men.....	94.30
Cooper & Cole Bros.....	81.54
D. McDonald & Co.....	164.88
Gas Light Journal.....	3.00
Cahill Collins & Co.....	51.20
Rumsey & Co.....	34.64
Tank Line	2.55
Frank Berkley	2.25
Barrett, cartage	1.25
Wm. Lawlor	100.00

Weekly wages to men.....	163.05
A. J. Kaufman.....	27.50
Wm. Seighman	3.75
Jas. Dorobrasky	3.00
Weekly wages to men.....	191.50
Kitchen & Barrett.....	5.40
Frts. on meters.....	6.25

31—431.

1893 (Continued).

Construction:

Frts. on H. Stone.....	2.05
Snider & Trenkamp.....	14.40
Kitchen & J. Lawlor.....	7.50
Weekly wages to men.....	119.70
Rehlaender & Postal.....	1.95
Moore & Berry.....	9.10
Taylor & Barrett.....	12.50
Chi. Lumber Co. Dean & H.....	8.20
State Journal Co.	20.50
News Publ. Co.....	18.20
Wm. Seaghman	27.50
Cap. City Courier.....	20.00
R. S. Young.....	41.88
Kelly Corrugated Iron.....	27.77
Sharp & Desota.....	4.85
Tank Line	1.35
Sueter & Mayer Bros.....	3.75
C. E. Hedges.....	6.40
Frts. on 4" pipe.....	58.25
Dubois with team	22.50
Weekly wages to men.....	272.41
Robart, Barten & Sons.....	19.42
C. Snell & D. Snell.....	2.29
Sack cement .....	.40
A. Shone .....	.90
Cooper & Cole Bros.....	235.38
Cook & More.....	1.00
Weekly wages to men.....	385.42
Wages to men laid off.....	31.44
Wm. Seaghman	27.50
Fisher & Westover.....	19.47
E. Motz	6.28
Wages to men laid off.....	35.75

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J. Nedwick	5.35
Morris Wilson	43.00
Weekly wages to men.....	388.75
Tannery Publics	3.00
Frts. on meters.....	5.05

Rothschilds, cartage .....	.25
Wages to men laid off.....	31.30
J. Hodwick	1.80
Brown & Barrett, cartage.....	1.00
Weekly wages to men.....	309.30
Cooper Radiator Co.....	33.25
Cap. City Courier.....	10.00
Governor & Boiler works.....	5.00
Baldwin Bros. & Mayer Bros.....	7.90
Motz & Humphrey Bros.....	2.96
Pomerene & Cooper.....	7.35
Chicago Lumber Co.	49.81
R. S. Young.....	134.32
Wm. Seighman	27.50
Lincoln News Co.....	18.90
Fisher & Westover.....	9.00
State Journal Co.....	30.00
Wages to men laid off.....	51.90
Rudge & Morris.....	4.07
Weekly wages to men.....	360.10
Paint & Color Co.....	33.42
Whitebreast Coal Co.....	3.60
Morris & Wilson.....	55.00
A. D. Kelly.....	30.99
Mann & Cleveland, cartage.....	1.00
McDonald Meters	221.40
Cooper & Cole Bros.....	505.83
Dean & Horton.....	27.80
Weekly wages to men.....	257.00
Fisher & Westover.....	100.00
Shickle H. & H. in full.....	470.57
Fisher & Westover.....	72.70
Wages to men laid off.....	27.25
Fisher & Westover, bal. floor.....	81.50
Tyler Coping Stone	20.00

32—432.

1893 (Continued).

Construction:

Wm. Seighman	27.20
Weekly wages to men.....	109.50
15 copies of Gas Journal.....	1.50
Finney & Glover, cartage.....	.60
Wm. McCline	10.50
Frt. on meters.....	4.81
Rothschilds cartage .....	.25
Weekly wages to men.....	135.60
“ “ “	130.50
Jasnch & Wittman Co.....	13.95
Seighman, Kelly & Chowins.....	128.07

35—83

Postal & Camp Bros.....	3.50
R. L. Smith.....	45.00
R. S. Young.....	190.88
Whitebreast Coal Co.....	15.90
Paint & Color Co.....	8.40
Weekly wages to men.....	43.75
Progressive Age	4.00

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McDonald Meter Co.....	183.60
H. T. Clark Drug Co.....	57.17
Dubois & Schultz.....	11.00
Cooper & Cole Bros.....	213.08
Brown, cartage .....	.25
Express on pump repairs.....	.65
Weekly wages to men.....	68.60
Chas. O. Whedon Att'y Fees.....	250.00
Wm. Seighman	27.50
Dean & Horton.....	32.97
J. Schultz	6.00
Alias & Poska, cartage.....	1.00
Weekly wages to men.....	54.10
Express on Sturdevant En. Repairs...	2.65
City Permit	1.00
Weekly wages to men.....	61.50
John Barret cartage.....	1.00
Pomerene & Cooper.....	1.86
Harley & F. McKee.....	18.70
Rehlaender & Humphrey Bros.....	3.55
Wm. Seighman	27.50
Kenny Boiler Works.....	18.60
Fisher & Westover.....	5.80
Poska & Thorp.....	3.20
Weekly wages to men.....	73.75
Chas. Kruger	9.00
Worthington Pump repairs.....	5.44
Rumsey & Co.	3.08
McDonald & Co.....	162.00
Cooper & Cole Bros.....	106.05
Poska & City permit.....	2.00
Express on driving area.....	1.15
Weekly wages to men.....	61.00
John Gray	4.20
Wm. Seighman	27.50
Schall, cartage .....	.75
Shaffer, cartage	1.00
Broom and glass cutter.....	.50
Weekly wages to men.....	57.75
The Call adv.....	90.50
Frt. on meters.....	4.85
Wages to men laid off.....	28.00

Weekly wages to men.....	33.75
Telegram for meters.....	.40
Rudge & Morris.....	1.85
Camp Bros. & Griswold.....	6.50
Wm. Seighman	27.50
Weekly wages to men.....	59.75
D. McDonald & Co.....	162.00
Cooper & Cole Bros.....	188.95
Weekly wages to men.....	37.00
Frt. on meters.....	10.64
Weekly wages to men.....	45.00
Wm. Seighman	27.50
Parks, cartage	1.00
Wages to men laid off.....	66.75
Weekly wages to men.....	40.50
Kruse & Girdy	4.35

433.

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1893 (Continued).

Construction:

W. H. Beebe.....	9.00
News Printing Brief.....	27.90
Weekly wages to men.....	58.45
Fred Dybbro	11.50
Dean & Horton.....	.70
Wm. Seighman	27.50
Whitebreast Coal Co.....	1.95
Ambrose Kitchen	4.50
Geo. Cox, cartage.....	.50
Dees & Ray.....	10.50
Weekly wages to men.....	45.30
Barret & Shaffer, cartage.....	1.25
Frt. on meter.....	.80
John Freass	9.00
Cooper & Cole Bros.....	214.89
Rumsey & Co.....	17.31
Weekly wages to men.....	28.40
Wm. Seighman	23.75
Frease & Boyd.....	10.50
Wm. Seighman	3.75
Brown, cartage .....	.50
Weekly wages to men.....	43.50
Carveth, cartage .....	.35
Dybbro & Barrett, <i>carge</i>	6.25
Rothschilds, cartage .....	.25
Weekly wages to men.....	46.50
Dean & Horton.....	1.55
Rudge & Morris.....	5.61
Wm. Seighman	27.50

A. S. Kelly.....	5.19
Weekly wages to men.....	69.75
John Holtz	1.20
Rothschilds, cartage .....	.25
Weekly wages to men.....	29.00
D. McDonald & Co.....	162.00
Fairchild, cartage .....	.25
Cooper & Cole Bros.....	200.00
Wm. Seighman	23.75
“ cartage	4.00
Frt. on meters.....	5.05
Frt. on scoops.....	2.28
Weekly wages to men.....	40.00
Hooker & Rudge & M.....	3.25
Chi. Lumber Co.....	18.35
Wm. Seighman	27.50
W. H. Beebee.....	7.00
Fisher & Westover.....	7.85
Weekly wages to men.....	26.70
Pomerene & Cooper.....	12.76
Geo. Downing	5.10
Wages to men.....	42.00
McDonald & Co.....	162.00
L. M. Rumsey Mfg. Co.....	16.05
Cooper & Cole Bros.....	53.09
Wm. Seighman	17.59
“	9.91
Wages to men.....	21.75
“	57.30
Poska, cartage	1.25
Weekly wages to men.....	52.65
Dinien Sts.	909.45

17,345.41

434.

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1894.

Construction:

A. Chandler	1.20
Chicago Lumber Co.....	37.67
W. B. Wolcott.....	11.04
Wm. Seighman	27.50
H. T. Clark Drug Co.....	38.85
Cunningham, Kitchen & Hopfinger...	3.60
Rehlaender & Harley.....	4.70
Cunham & Karben.....	2.45
Hooker & Orr.....	.20
Whitebreast, smithy coal.....	2.70
Cooper & Cole Bros.....	24.16
Weekly wages	23.25
Dean & Horton.....	4.12

Weekly wages	26.55
D. McDonald & Co.....	172.80
Wm. Seighman	23.75
“	3.75
Weekly wages to men.....	31.95
“	25.05
Wm. Seighman	27.50
Wages to men.....	42.15
Jordan Meter Co.....	.75
Polly & Cunham.....	7.80
Wages to men.....	21.45
Cooper & Cole Bros.....	24.19
D. McDonald & Co.....	23.76
E. P. Gleason Mfg. Co.....	10.00
Wm. Rumsey Mfg. Co.....	3.50
John Shotts	1.20
Wm. Seighman	27.50
Wages to Gray & Shotts.....	10.65
City Permit	1.00
Wages to men.....	17.30
Poska, cartage	1.00
Carbon & St.....	3.00
Wm. Seighman	27.50
Wages to men.....	40.45
Whitebreast brick	39.00
Cooper & Cole Bros.....	47.20
Wm. Seighman	27.50
City Permit	1.00
Weekly wages to men.....	120.00
Garretson	4.50
Rothschilds cartage .....	.25
Weekly wages to men.....	113.40
“ “ “ laid off.....	25.35
“ “ “ “	18.45
Wages to men.....	11.25
Cemahaw & Humphreys.....	4.40
Wages to men.....	37.35
Harley & Transfer Co.....	5.65
Wm. Seighman	27.50
4" pipe	300.00
Thus Canaham	1.80
Weekly wages to men.....	22.35
Dennis long & Co.....	250.00
Frt. on pipe.....	50.00
Barrett, cartage .....	.50
Cooper & Cole Bros.....	44.20
J. Adolph	4.05
Clark Drug Co.....	27.25
Weekly wages to men.....	26.25
Olsen & Shafer, cartage.....	1.50
Wm. Seighman	27.50

Frts. on pipe.....	37.00
Wages to men.....	25.65
“.....	22.80
Weekly wages to men.....	36.00
Fager & Shafer.....	2.25
Rothschilds & Fager, cartage.....	.75
“ cartage.....	.50
Weekly wages to men.....	72.70
Merchants Transfer Co.....	2.00
Wm. Seighman.....	27.50
Dean & Horton.....	47.84

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1894 (Continued).

Paint & Color Co.....	4.88
Wages to men.....	23.85
Cooper & Cole Bros.....	105.06
Weekly wages to men.....	26.25
Goldstein & Curber.....	5.85
Wages to men laid off.....	72.65
Rothschilds, cartage.....	.75
Wm. Seighman.....	27.50
Wages to men.....	47.75
E. D. Metsell.....	.75
Weekly wages to men.....	90.70
Burke, cartage.....	.50
Waker & Cartage.....	2.75
Weekly wages to men.....	69.95
Kitchen, cartage.....	2.50
W. B. Wolcott.....	3.82
Wilson & Chilson.....	48.25
Wm. Seighman.....	27.50
W. B. Wolcott.....	6.08
Weekly wages.....	51.00
Dierks Bros.....	3.30
Jno. Radley, cartage.....	.35
Poska, cartage.....	.35
Dean & Horton.....	7.34
H. Wittman & Co.....	1.25
Weekly wages to men.....	60.25
Cooper & Cole Bros.....	439.85
Postka, cartage.....	.60
Radley, cartage.....	.50
Weekly wages to men.....	81.60
Wm. Seighman.....	27.50
Frts. on lead pipe.....	1.35
“ crate meters.....	4.05
Peter Peterson.....	3.00
Weekly wages to men.....	65.40

Weekly wages to men.....	64.55
Dierks & Fisher & W.....	12.50
Baldwin Bros. & Call.....	11.20
Wm. Seighman	27.50
Whitebreast Coal Co.....	17.50
Clark Drug Co.....	67.60
L. M. Rumsey Mfg. Co.....	15.06
Weekly wages to men.....	47.85
Cooper & Cole Bros.....	66.17
Henry Furn	1.80
Cook & Moore.....	1.75
Weekly wages to men.....	66.00
Wm. Seighman	27.50
Weekly wages to men.....	23.20
Carveth, cartage25
C. E. Hedges.....	15.05
Weekly wages to men.....	36.15

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Rothschilds, cartage50
Carveth, cartage50
Wm. Seighman	27.50
Kenny, new boiler.....	278.00
Clark Drug Co.....	43.56
Wages to men laid off.....	9.75
Weekly wages to men.....	16.50
McDonald & Co.....	140.76
Cooper & Cole Bros.....	94.55
Dean & Horton & Color Co.....	8.04
The Coll, in full.....	100.00
Fisher & Westover.....	6.20
R. L. Smith.....	2.00
Wm. Seighman	27.50
Carveth, cartage .....	.25
Weekly wages to men.....	15.95
John Gray	6.75
W. G. Carveth.....	.25
Baker, cartage .....	.25
Weekly wages to men.....	28.95
W. D. Seighman.....	27.50

36—436.

1894 (Continued).

Construction:

Cooper & Cole Bros.....	110.05
Carveth, cartage .....	.50
Weekly wages to men.....	46.60
Tilton, cartage .....	.75
Bert Betts & Cartage.....	2.25
Frt. on meters.....	5.10
Fisher & Westover.....	7.25

Weekly wages to men.....	26.00
Wm. Seighman	27.50
Carveth & Rothschilds.....	.50
Graham buggy	2.00
R. S. Young, cement.....	23.00
Rothschilds, cartage .....	.25
Weekly wages to men.....	32.10
Weekly wages to men.....	23.40
W. D. Seighman.....	27.50
Frt. on lead pipe.....	1.92
Weekly wages to men.....	52.65
Drith & Hedges.....	3.10
Cooper & Cole Bros.....	101.84
D. McDonald & Co.....	178.20
Wages to men.....	12.00
James Givens	2.00
John Gray	6.75
Weekly wages to men.....	27.80
Wm. Seighman	27.50
Cartge. Nedwick	3.00
Weekly wages to men.....	20.45
4" pipe J. P. M.....	50.00
Weekly wages to men.....	77.20
John Holtz	9.00
More & Baldwin Bros.....	7.60
Helser & Nelson.....	6.75
Paint & Color Co.....	10.90
W. D. Seighman.....	27.50
John Lendholm	7.50
Clark Drug Co.....	52.81

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Wages to men.....	3.95
Weekly wages to men.....	60.75
Whitebreast Coal Co.....	4.40
Cooper & Cole Bros.....	108.00
Rumsey Mfg. Co.....	20.42
Gullick cartage .....	.25
Weekly wages to men.....	63.00
Geo. Kuben	5.55
Frt. on meters.....	6.20
W. D. Seighman.....	27.50
John Lindholm	5.50
"	2.00
Weekly wages to men.....	36.00
Mason, cartage .....	.75
Weekly wages to men.....	32.85
"	24.45
W. D. Seighman.....	27.50
John Lindholm	7.50
Dierks Bros.	2.45
Paint & Color Co.....	3.20

Clark Drug Co.....	11.00	
Carveth, cartage .....	.25	
“ .....	.50	
Cooper & Cole Bros.....	52.72	
Wages to men.....	13.20	
H. Keibert	2.70	
Weekly wages to men.....	43.20	
D. McDonald & Co. meters.....	205.20	
Jas. B. Glow & Son.....	11.40	
Baker, cartage	2.00	
Weekly wages to men.....	40.40	
W. D. Seighman.....	27.50	
John Lindholm	7.50	
Nelson & Karber.....	2.70	
Weekly wages to men.....	42.18	
“	20.25	
		\$6,534.89

437.

1895.

Construction:

W. D. Seighman.....	9.51
W. D. Seighman.....	17.99
John Lindholm	7.50
Weekly wages to men.....	21.90
Cooper & Cole Bros.....	67.87
Weekly wages to men.....	38.85
W. D. Seighman.....	31.95
Weekly wages to men.....	36.80
Dierks Bros.	7.70
W. D. Seighman.....	27.50
Rudge & Morris.....	4.65
Fisher & Westover.....	3.15
Whitebreast, fire brick	10.50
Taxes	200.00
Weekly wages to men.....	41.40
Hooker & Paint Co.....	3.70
Weekly wages to men.....	32.50
Cooper & Cole Bros.....	33.78
W. D. Seighman.....	2.00
Weekly wages to men.....	84.65
W. D. Seighman.....	25.50
Weekly wages to men.....	93.50
W. G. Bruell.....	39.90
Frt. on test meter.....	3.80

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Cash to men.....	50.00
“	26.25
Rudge & Morris.....	6.95
W. D. Seighman.....	27.50
Copperas	72.39

Whitebreast Coal Co.....	19.00
Weekly wages to men.....	50.05
Humphrey Bros.	7.60
Frt. on Furniture & tickets.....	1.10
Cooper & Cole Bros.....	43.72
Chicago Lumber Co.....	28.00
Cook & Moon.....	.65
Weekly wages to men.....	43.20
Iron pipe	500.00
American Meter Co.....	3.20
Gas Light Journal.....	3.00
Wages to men laid off.....	50.00
S. Hartzel	6.50
W. G. Seighman.....	26.30
W. D. Seighman.....	1.20
Weekly wages to men.....	37.85
Frt. on —.....	41.48
Cast Iron Pipe.....	500.00
Weekly wages to men.....	45.40
O. W. Olson.....	.25
Weekly wages to men.....	48.90
Crane & Baldwin Bros.....	3.59
Wittman & Co. Rudge & Morris.....	5.80
W. D. Seighman.....	27.50
2" pipe	200.00
Karber & Greeley.....	4.50
Dennis Long & Co.....	500.00
Chicago Lumber Co.....	6.25
Weekly wages to men.....	36.00
Clark & Co.....	1.43
John Sansky	2.00
Wm. Manchester	45.00
Weekly wages to men.....	79.90
W. D. Seighman.....	27.50
Cooper & Cole Bros.....	41.42
Noldi, cartage & Oil.....	1.25
Wages to men laid off.....	35.05
Weekly wages to men.....	139.10
Car tickets to Rolen.....	1.40
G. W. Bonnell.....	28.80
Snyder, cartage .....	.50
Wages to men laid off.....	16.80
Weekly wages to men.....	58.85
Frt. & Transfer Co.....	2.70
W. D. Seighman.....	27.50
Weekly wages to men.....	124.35
Paint & Color Co.....	16.48

38—438.

1895 (Continued).

Construction:

Cooper & Cole Bros.....	349.64
J. Graney .....	.90
Weekly wages to men.....	100.90
Frt. on gas meters.....	6.45
Seighman & E. Anderson.....	36.85
Weekly wages to men.....	91.75
Wages to men	31.50

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Weekly wages to men.....	66.00
Henry H——l	15.00
Car sawdust	20.00
Weekly wages to men.....	44.95
W. D. Seighman.....	27.50
Standard Glass Co.....	8.00
S. E. Moore.....	5.00
Copperas	40.95
E. Anderson	7.50
Moving stock room.....	1.50
Hardy Furn. Co.....	17.00
W. R. Hooker.....	6.00
Carveth, cartage .....	.35
R. S. Young.....	104.50
Merchants Trans. Co.....	2.75
Weekly wages to men.....	93.50
Cooper & Cole Bros.....	200.02
½ Carpet in #108.....	63.84
McDonald & Co. meters.....	200.08
F. Shriner .....	.75
Weekly wages to men.....	70.55
Nails for Supply Room.....	.50
W. G. Seighman.....	27.50
Tickets, oil & lumber.....	1.30
Bal. Frt. on car saw-dust.....	2.00
Weekly wages to men.....	66.15
“	40.50
Davis & Son & Pomerene.....	7.00
Baldwin Bros. & Healy.....	10.25
Merchants Trans. Co.....	2.25
Wittman & Co.....	4.50
W. D. Seighman.....	27.50
Clark Drug Co. copperas.....	35.19
Whitebreast cement	12.00
R. S. Young.....	5.25
Chas. E. Chownins.....	5.00
B. & M. Moving Boxes.....	145.20
Wm. Cunningham	4.50

M. L. Turner.....	1.00
Cooper & Cole Bros.....	120.26
Weekly wages to men.....	43.45
Hardy Furn. Co.....	6.50
Cook & M. J. Nalley.....	9.00
Carveth cartage, car tickets.....	.50
Weekly wages to men.....	56.55
Exp. on gauges.....	1.00
Seighman & R. Lawlor.....	40.00
Weekly wages to men.....	54.00
Poska cartage.....	.50
Weekly wages to men.....	64.60
C. E. Hedges.....	16.02
Seighman & R. Lawlor.....	40.00
R. S. Young.....	2.55
Whitebreast Brick.....	4.00
Cooper & Cole Bros.....	32.54
Weekly wages to men.....	71.80
Turner, cartage.....	.50
Weekly wages to men.....	55.30
M. L. Turner.....	.75
McDonald & Co.....	8.00
Wm. Lawlor.....	33.00
Robt. Lawlor.....	6.65
Wm. Seighman.....	27.50
Weekly wages to men.....	33.75
Wm. Lawlor.....	35.00
Weekly wages to men.....	30.50
McLean, cartage.....	.25

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M. L. Turner.....	2.00
Weekly wages to men.....	35.10

39—439.

1895 (Continued).

Construction:

W. D. Seighman.....	27.50
Whitebreast Co.	22.00
R. L. Smith.....	2.51
Robt. Lawlor.....	12.50
Weekly wages to men.....	58.65
Cooper & Cole Bros.....	48.11
Cook & More.....	2.75
Frt. on meters.....	5.10
Frt. on scoops.....	.88
½ chairs, table, etc.....	22.66
Weekly wages to men.....	66.10
W. D. Seighman.....	27.50
John Gray.....	4.50
4" pipe.....	300.00

Weekly wages to men.....	77.00
Frt. on lead pipe.....	1.65
Emery, cartage .....	.25
David Sell	2.00
Weekly wages to men.....	47.75
W. D. Seighman.....	27.50
Clark Drug Co., copperas.....	40.73
Clark Drug Co.....	.90
Paint & Color Co.....	2.50
Fisher & Westover.....	.15
Weekly wages to men.....	26.55
Cook & Moore.....	1.75
Frt. on gas meters.....	4.93
Rumsey & Co.....	16.76
McDonald & Co.....	180.00
Chisholm & Sons.....	9.25
Weekly wages to men.....	30.80
M. L. Turner.....	.95
Cooper & Cole Bros.....	85.63
W. D. Seighman.....	27.50
Weekly wages to men.....	57.60
"	64.25
W. D. Seighman.....	27.50
Lincoln Drug Co.....	36.19
Whitebreast Coal Co.....	2.40
S. K. Masten & Rudge & Morris.....	13.15
Jos. Neswick	3.75
Fisher & W. & Hedges.....	8.07
Weekly wages to men.....	37.10
Cooper & Cole Bros.....	141.23
Wages cleaning box.....	23.40
Dierks Bros.	18.80
McDonald & Co.....	160.00
R. S. Young.....	9.53
Weekly wages to men.....	56.90
W. D. Seighman.....	3.00
Weekly wages to men.....	40.75
W. D. Seighman.....	24.50
Gray & Mitter.....	17.70
Frt. on New Brooms.....	.60
A. Bloom	3.00
Henry Voorman	2.70
Weekly wages to men.....	37.80
"	21.25
Wages to men.....	29.55
R. S. Young.....	2.53
W. D. Seighman.....	5.30
"	22.30
Lin. Drug Co.....	24.34
Dierks Bros.	26.55

Weekly wages to men.....	34.80
Whitebreast Coal Co.....	7.50
Cooper & Cole Bros.....	46.90
Lee Broom Co.....	4.25
Phoenix Broom Co.....	9.00
Weekly wages to men.....	83.70
W. D. Seighman.....	27.50
Weekly wages to men.....	55.15
Frt. on copperas.....	8.00
Weekly wages to men.....	80.35
Baldwin Bros. 9.60 G. Dreith 2.55....	12.15

9,081.63

40—440.

1896.

Construction:

W. D. Seighman.....	27.50
Weekly wages to men.....	61.50
Copperas	10.83
Cooper & Cole Bros.....	54.98
Korsmeyer Co.	2.10
Grote & Miller.....	3.30
Express on tips and pillars.....	.85 We
Weekly wages to men.....	24.30
Smith Dierks	4.60
W. D. Seighman.....	27.50
Weekly wages to men.....	32.75
Cleaning boxes	18.75
Weekly wages to men.....	27.75
W. D. Seighman.....	26.25
Dierks Bros.	121.61
Straw & Cartage.....	4.50
Cooper & Cole Bros.....	33.29
Whitebreast fire clay etc.....	22.90
C. E. Hedges.....	3.25
Weekly wages to men.....	44.00
J. B. Clow & Son.....	14.70
L. K. Holmes.....	8.00
Frt. on copperas.....	16.35
Weekly wages to men.....	27.60
W. D. Seighman.....	26.25
Weekly wages to men.....	79.20
Thos. Greeley	3.75
Weekly wages to men.....	24.75
W. D. Seighman.....	26.25
Cooper & Cole Bros.....	20.00
Whitebreast Coal Co.....	8.00
R. S. Young.....	12.25
Gas Lt. Journal.....	3.00
Morrison Plummer & Co.....	22.15
Weekly wages to men.....	32.75
2" pipe	300.00

Morris Wilson	32.55
Weekly wages to men.....	26.00
W. D. Seighman.....	26.25
Weekly wages to men.....	40.70
M. L. Turner.....	.50
Weekly wages to men.....	40.50
Wages cleaning box.....	20.70
Goldstein & Hoch.....	3.90
Weekly wages to men.....	43.70

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S. Shrine	3.75
W. D. Seighman.....	26.25
Cooper & Cole Bros.....	27.96
Whitebreast fire brick.....	40.40
Vroorman & Hansen.....	8.25
Weekly wages to men.....	19.46
Men cleaning boxes.....	150.00
Leading & Cunningham.....	19.50
Menke & Co.....	39.00
Whitebreast, lime	100.00
Cooper & Co.....	25.00
Hansen & Sell.....	5.25
Weekly wages to men.....	28.50
M. L. Turner.....	33.75
W. D. Seighman.....	26.25
Weekly wages to men.....	29.25
Wm. Lawlor	130.00
Weekly wages to men.....	58.20
W. D. Seighman.....	26.25
Cooper & Cole Bros.....	192.05
Whitebreast Co.	8.75
Weekly wages to men.....	130.25
Paint & Color Co.....	1.50
Humphrey Bros. ....	.70
Jas. Nedwick .....	.95
Weekly wages to men.....	81.25
Scott, cartage	1.00
Weekly wages to men.....	46.40
W. D. Seighman.....	26.25
Weekly wages to men.....	84.65
John Hansen	1.05
Peter Coch	1.05

41—441.

1896 (Continued).

Construction:

Frt. on Retort Cement.....	1.56
Weekly wages to men.....	51.90
Fisher & W. & Turner.....	12.00
W. D. Seighman.....	26.25

Lin. Drug Co.....	11.35
Whitebreast Coal Co.....	14.25
Kenny Boiler Works.....	25.80
Cooper & Cole Bros.....	147.82
Morris & Willson.....	20.95
Roberts & Smith.....	11.15
Exp. on crank shaft.....	4.65
Scott & Turner cartage.....	1.75
Weekly wages to men.....	45.00
W. J. Johns Mfg. Co.....	11.03
Express on meter.....	.70
Western Supply Co.	12.20
John Way	4.50
Frt. on lead pipe.....	2.48
Weekly wages to men.....	16.75
W. D. Seighman.....	26.25
Dales, stge. ....	.25
John Hilent	1.75
Weekly wages to men.....	54.75
“	30.00
W. D. Seighman.....	26.25
R. L. Smith.....	.25

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Weekly wages to men.....	32.25
Cooper & Cole Bros.....	62.63
John Roberts	10.50
R. S. Young.....	3.20
Whitebreast Coal Co.....	3.75
Rumsey & Co.....	27.91
P. H. & F. M. Roots Co.....	36.00
McDonald & Co.....	5.40
Progressive Age	3.00
Weekly wages	19.50
W. D. Seighman.....	26.25
Weekly wages	39.75
Cock & Kesler.....	3.00
D. Sell	1.50
Weekly wages	42.00
M. L. Turner.....	5.50
Weekly wages to men.....	86.35
Fisher & Westover.....	2.50
Merling 7 R. & Morris.....	14.20
W. D. Seighman.....	26.25
Cooper & Cole Bros.....	29.16
Brown, cartage .....	.25
Weekly wages to men.....	38.75
W. D. Seighman.....	26.25
Weekly wages to men.....	33.00
Wages to men.....	28.20
Weekly wages to men.....	31.25

Thos. Greeley .....	.75
Weekly wages to men.....	28.25
Westover Drug Co.....	15.05
W. D. Seighman.....	26.25
Cooper & Co.....	47.41
Weekly wages to men.....	25.75
Wages to men	5.25
Weekly wages to men.....	24.25
W. D. Seighman.....	26.25
Weekly wages to men.....	18.75
Wages to men	7.00
Weekly wages to men.....	25.05
Frt. on crate meters.....	5.00
W. D. Seighman.....	25.25
Whitebreast Co.	21.00
Weekly wages to men.....	25.95
John Hiber	1.95
Dierks Bros.	10.77
Thorp & Westover.....	4.55
Paint & Color Co.....	9.30
Cooper & Cole Bros.....	48.92
Weekly wages to men.....	42.25
Testing mains	100.00

42—442.

1896 (Continued).

Construction:

Express on Engine Repairs.....	1.30
W. D. Seighman.....	26.25
Weekly wages to men.....	20.35
“	27.25
Frt. on meters.....	.60
Frt. on governor.....	1.00
Weekly wages to men.....	25.65
W. D. Seighman.....	26.25
Westover & Co.....	4.50
Baldwin Bros.	7.66

457

Whitebreast Coal Co.....	26.45
Cooper & Cole Bros.....	18.83
Weekly wages to men.....	32.70
Maryland Meter Co.....	11.00
D. McDonald & Co.....	161.00
Radford & Cook & Moore.....	6.35
Dierks Bros.	11.60
Weekly wages to men.....	37.30
W. D. Seighman.....	26.25
Frt. on meters.....	4.50
Weekly wages to men.....	29.50
“	54.45

W. D. Seighman.....	26.25
Cooper & Cole Bros.....	15.73
Baldwin Bros.	1.50
Kenny Boiler Works.....	2.70
Weekly wages to men.....	66.60
Whitebreast Coal Co.....	7.00
Exp. on governor valve.....	1.60
Governor valve	21.83
Weekly wages to men.....	26.85
W. D. Seighman.....	26.25
H. Vroorman	3.75
Weekly wages	34.10
Weekly wages	24.75

5,327.06

1897.

Construction:

W. D. Seighman.....	26.25
Weekly wages to men.....	39.25
Whitebreast Coal Co.	20.00
Cooper & Cole Bros.....	19.06
P. H. & F. M. Roots Co.....	15.00
D. McDonald & Co.....	150.00
Dierks Bros.	26.65
Weekly wages to men.....	59.40
Digging Services	25.00
Weekly wages to men.....	46.35
W. D. Seighman.....	26.25
Weekly wages to men.....	18.00
“	12.00
W. D. Seighman.....	26.25
Whitebreast Coal Co.....	8.75
N. Westover .....	.40
C. D. Mullen.....	59.82
Kenny Boiler Works.....	12.60
Weekly wages to men.....	12.25
Telegram & Cartage.....	2.25
Cooper & Cole Bros.....	13.60
Weekly wages to men.....	19.50
“	15.00
4" pipe	25.00
Weekly wages to men.....	17.00
Keens, Kale & Sharp.....	5.50
A. M. Davis Co.....	3.50
Whitebreast Coal Co.....	14.00
S. Caldwell	60.00
John Dorgan	100.00
Weekly wages to men.....	24.50
Cooper & Cole Bros.....	15.30
C. D. Mullen.....	150.00
Frt. on meters.....	5.75
Frt. on coal.....	200.00
Wages to men	17.10

458

43—443.

1897 (Continued).

Construction:

Weekly wages to men.....	36.75
C. D. Mullen.....	275.00
Wages to men	22.50
Weekly wages to men.....	37.80
G. W. Bonnell.....	14.40
Weekly wages to men.....	101.40
Candle wicks & oil.....	1.25
Cleaning boxes & S.....	125.00
John Hansen	5.00
B. D. Granger.....	1.75
Weekly wages to men.....	128.50
Whitebreast Coal Co.	15.00
Cooper & Co.	87.80
Edwards & Co.	4.08
Acme Boiler Comp.....	24.48
State Journal Co.....	27.73
Frt. on O Cutter.....	.35
Lin. Drug Co.....	21.30
Christensen, cartage .....	.25
B. D. Granger.....	.96
Adams Mfg. Co.....	9.65
Baldwin & Holland.....	.90
Weekly wages to men.....	77.80
Baker cartage .....	.25
Att'y Fees	200.00
Hedlund & Cartage.....	1.75
2" pipe	250.00
Weekly wages to men.....	74.25
Frt. on meters.....	2.80
Murphy & Gridly cartage.....	.50
Holland, cartage .....	.35
Weekly wages to men.....	161.80
"	111.80
Frt. on lead pipe.....	1.45
Whitebreast Coal Co. lime.....	5.50
Murry & Smith.....	.60
Ike Cresse	1.75
Cooper & Cole.....	305.71
Weekly wages to men.....	99.25
E. Christensen .....	.50
McDonald & Co.....	138.36
L. M. Rumsey Mfg. Co.....	15.69
Grt. Wst. Mfg. Co.....	11.50
A. Vroorman	1.25
Cartage .....	.35
Weekly wages to men.....	55.05

Frt. on scoops.....	.60
C. E. Magoon, Att'y Fees.....	100.00
Holland, cartage .....	.25
" .....	.65
Weekly wages to men.....	40.50
Frt. on crate meters.....	5.60
Weekly wages to men.....	22.35
Thos. Fanil .....	.25
H. H. Barth.....	14.30
Baldwin Bros.	4.63
Transfer Co. & C. A. Adams.....	1.90
Whitebreast Coal Co.	17.65
Cooper & Cole Bros.....	107.92
Holland, cartage25
H. C. Babcock & Co.....	10.00
Cunningham & <i>Turner</i>	16.50

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Lawlor & Virgual.....	20.60
Wages to men	37.75
S. F. Holland.....	.25
E. L. Baker.....	.25
Wages to men	40.25
S. F. Holland.....	.25
Thos. Farrell .....	.35
Hansen & Dorman.....	10.00
Gray & Newick.....	8.75
Cunningham & Turner.....	17.25
R. & J. Lawlor.....	15.00
Baker, cartage .....	.25
Weekly wages to men.....	64.65
Dierks Bros.	30.72
Cooper & Cole Bros.....	73.04

44—444.

1897 (Continued).

Construction:

Block, Weber & Poop.....	6.25
Kenny Boiler Works.....	1.80
Weekly wages to men.....	65.90
McDonald meters	180.00
Holland, cartage .....	.75
John Wile	2.50
Wages to men	73.35
John Weber	4.25
Wages to men	50.63
"	41.45
Whitebreast Coal Co.....	24.50
Dierks Bros.	8.44
Cooper & Cole Bros.....	61.79
Weekly wages to men.....	36.25

Baldwin Bros.	1.00
Lincoln Drug Co.....	12.55
Frt. on meters.....	3.45
Weekly wages to men.....	28.65
P. L. Kenny.....	3.15
Weekly wages to men.....	34.40
Frt. on lead pipe.....	1.65
W. E. McKnight.....	2.10
Weekly wages to men.....	40.65
C. J. Roman.....	4.25
G. W. Wilcox.....	15.80
Tolmer & Journal Co.....	1.20
Dierks Bros.	7.36
Minick Adams	27.10
Cook Witmann	14.35
Cooper & Cole Bros.....	60.09
Weekly wages to men.....	32.50
Baker cartage .....	.25
Rumsey & Co.....	23.06
D. McDonald & Co.....	110.00
Weekly wages to men.....	48.30
John Hansen	3.15
Kenny Boiler Works.....	4.20
Holland, cartage	1.50
J. Barrett	1.25
Weekly wages to men.....	38.15
"	48.00
A. H. Baker.....	.25
Whitebreast Coal Co.....	14.00

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Lincoln Drug Co.....	21.84
Cooper & Cole Bros.....	58.86
Weekly wages to men.....	46.30
A. H. Baker.....	.35
Humphrey Bros.	6.00
Menke Co.	48.75
Frank Holland	1.00
Smith & Baker.....	1.85
C. A. Adams.....	4.40
Weekly wages	44.85
Carveth, cartage .....	.75
Granger, <i>cartage</i>	2.00
Weekly wages to men.....	45.75
Frt. on meters.....	6.45
Holland, cartage	1.00
J. L. Baldwin, cartage.....	.35
Weekly wages to men.....	71.50
"	48.50
Whitebreast Coal Co.....	47.25
Cooper & Cole Bros.....	67.60
A. H. Baker.....	.25

C. E. Hedges.....	21.77
Weekly wages to men.....	44.00
D. McDonald & Co.....	200.00
Dierks Bros.	7.94
Kenny Boiler Works.....	41.60
Weekly wages to men.....	69.95
Ducking for tank.....	2.12
Weekly wages for men.....	37.50
“.....	48.75
Kenny Boiler Works.....	20.00

45—445.

1897 (Continued).

Construction:

Weekly wages to men.....	42.40
Cooper & Cole Bros.....	90.00
Baldwin Bros.	1.85
Whitebreast Coal Co.....	7.00
W. G. Wilcox.....	6.65
G. W. Bags.....	2.00
Weekly wages to men.....	42.75
C. A. Adams .....	.50
Hauling cinders to 29th & Q.....	.50
Pt. & Color Co.....	2.00
Weekly wages to men.....	49.00
“.....	54.65

6,810.45

1898.

Construction:

Wm. Gergie	5.00
Weekly wages to men.....	58.95
Kenny Boiler Works.....	36.25
Cooper & Cole Brothers.....	23.54
Weekly wages to men.....	36.50
Drug Co. 4.52 Matter 4.50.....	9.02
Harley Baldwins	3.60
Harmer & Winchester.....	3.50
C. E. Magoon, Att'y Fees.....	100.00
Weekly wages to men.....	38.15
L. Austen	25.00
Weekly wages to men.....	55.80
“.....	41.50

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Whitebreast Coal Co.....	17.50
Cooper & Cole Bros.....	8.88
Baldwin Bros.	3.85
Weekly wages to men.....	12.75
C. A. Adams.....	1.75
Weekly wages to men.....	21.50
“.....	25.25

G. W. Folman.....	.35
Weekly wages to men.....	35.25
G. W. Wilcox.....	11.25
Cooper & Cole Bros.....	56.24
Weekly wages to men.....	43.40
Whitebreast fire brick.....	32.00
C. A. Adams.....	3.65
Weekly wages to men.....	74.50
S. F. Holland.....	1.50
Frt. Car Sawdust.....	10.40
Weekly wages to men.....	55.00
“.....	56.75
John Gray.....	1.50
Frt. on crate meters.....	3.72
B. & M. car saw dust.....	4.00
F. Holland, cartage, & cinders.....	2.25
Whitebreast Coal Co.....	25.43
Lincoln Drug Co.....	82.24
Weekly wages to men.....	69.05
Dybbro & Echhart.....	8.75
Dierks Bros.....	5.40
Cooper & Cole Bros.....	76.77
D. McDonald & Co.....	120.00
Oster Die.....	1.90
Clow & Son.....	12.00
Weekly wages to men.....	49.65
Frt. on gas meters.....	3.25
Weekly wages to men.....	30.25
Car Pusher.....	10.00
Hauling Blocks.....	2.50
Frt. on Gillison Fixtures.....	3.35
Weekly wages to men.....	94.10
Frt. on Gibson Fixtures.....	1.34
Frt. on Prepair Meters.....	.85
Men hunting leaks.....	23.00
Weekly wages to men.....	72.30
“.....	15.05
Terrel, cartage.....	.50

46—446.

1898 (Continued).

Construction:

Western Supply Co.....	17.06
Cooper & Cole Bros.....	77.39
Folman & Wilcox.....	13.40
Harmon & Worchester.....	2.75
Weekly wages to men.....	59.00
A. L. Shader.....	.90
Carting Dierks.....	.50
McDonald & Co.....	70.67
Prepaid meters.....	32.50

Nat'l Tube Works.....	484.00
Weekly wages to men.....	104.25
Kimball & Baldwin Bros.....	2.20
Billmeyer & Co.....	40.00

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Sam Hartzell	18.00
Weekly wages to men.....	102.60
B. & M".....	59.80
Bacon, cartage50
Pt. & C. Co. Baker etg.....	6.35
G. A. Folmer.....	9.30
Harmer & Winchester.....	1.00
Baker, Schrine & Block.....	1.75
Whitebreast Coal Co.....	28.00
Menke & Co.....	48.75
Gibson Gas F. Co.....	196.06
Weekly wages to men.....	60.15
Western Supply Co.....	9.12
Frt. on crate meters.....	4.15
Cooper & Cole Brothers.....	181.66
Weekly wages to men.....	42.50
Hedges & Pierce.....	4.82
Hansen, cartage .....	.35
Weekly wages to men.....	63.20
D. W. Camp & Son.....	40.00
Frt. on gas meters.....	4.92
M. Murphy, cartage.....	1.00
Weekly wages to men.....	45.00
"	42.50
Frt. on lead pupe.....	1.44
Merchants Trans. Co.....	.50
Whitebreast Coal Co.....	32.25
Cooper & Cole Bros.....	205.94
Weekly wages to men.....	48.75
J. C. Chase, cartage.....	2.50
C. C. Clements, cartage.....	.50
G. W. Folmar.....	7.05
Rumsey & Co.....	19.08
Gibson Fix. Co.....	12.13
Baldwin Bros.	1.56
Hauling dirt 26th & R.....	.75
Frank Luck	1.90
Holland & Chase cartage.....	2.50
Weekly wages to men.....	51.90
Fitzgerald, ducking	3.10
McDonald & Co., meters.....	270.00
Weekly wages to men.....	35.75
Frt. on meters.....	5.45
Weekly wages to men.....	43.75
M. Janowitz	9.00
Holland & Pierce, cartage.....	2.00

Baldwin Bros.	4.62
H. Bauer	3.50
Paint & Color Co.....	3.20
Rudge & Morris.....	8.00
D. W. Camp.....	.50
Geo. Pierce, cartage.....	1.50
Weekly wages	71.50
Hansen, cartage .....	.25
Cooper & Cole Bros.....	149.75
Holland, cartage	1.45
Weekly wages to men.....	45.65
Thos. Greeley	1.25
Frank Holland, cartage.....	1.00
Weekly wages to men.....	52.35
Telegram for meters40
Weekly wages to men.....	57.50
Frt. on meters.....	2.30

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47—447.

1898 (Continued).

Construction:

G. N. Folmar.....	4.70
Transfer Co.	3.75
Frt. on meters.....	4.16
Weekly wages to men.....	74.45
G. N. Follmar.....	1.50
Chris. Overton .....	.75
Cooper & Cole Bros.....	100.00
Weekly wages to men.....	95.50
"	87.15
McDonald Meters	360.00
Weekly wages to men.....	39.45
Express on Oster Dies.....	.45
Frt. on lead pipe.....	1.65
Frt. on gas meters.....	4.75
Weekly wages to men.....	43.75
Adams Mfg. Co.....	10.05
Rumsey & Co.....	24.69
Oster Dies	5.25
Wire Brooms	21.00
McDonald & Co.....	150.00
Weekly wages to men.....	26.90
Cooper & Cole Bros.....	225.52
A. H. Baker.....	.25
Weekly wages to men.....	74.55
G. N. Follmar.....	4.35
Weekly wages to men.....	37.25
Frt. on meters	3.31
Murphy, cartage .....	.50
Weekly wages to men.....	68.55

M. Janowitz	22.50
W. N. Rehlaender.....	1.95
Rep'y Scales	25.00
Whitebreast Coal Co.....	19.75
Humphrey & Rudge & M.....	30.10
A. B. Baker, cartage.....	.25
A. L. Shader.....	1.00
Cooper & Cole Bros.....	62.90
Weekly wages to men.....	61.40
“	43.75
“	78.00
“	49.25
Martin Lumber Co.....	6.22
Lincoln Drug Co.....	15.00
J. O. Buck.....	7.20
Pt. & Color Co.....	21.81
Weekly wages	39.00
Sam. Hartzell	10.00
Whitebreast Coal Co.....	7.40
R. L. Smith .....	.20
D. McDonald & Co.....	100.00
Cooper & Cole Bros.....	40.80
Weekly wages to men.....	30.95
“	16.50
“	22.80
“	40.60
M. Janowitz	59.11

 6,427.28

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1899.

Construction:

Adams	2.75
C. E. Hedges.....	7.36
H. W. Exley.....	2.95
Wittman & Co.....	5.60
Whitebreast Coal Co.....	27.99
Cooper & Cole Bros.....	79.00
Weekly wages to men.....	71.80
“	35.70
“	102.80
“	113.00
Baldwin Bros.	13.09
Weekly wages to men.....	44.00

48-448.

1899 (Continued).

Construction:

W. H. Exley.....	21.70
Dierks Bros. & H. Bros.....	4.75
Lincoln Drug Co.....	19.95

Cooper & Cole Bros.....	38.83
Weekly wages to men.....	38.05
C. A. Adams.....	28.65
Weekly wages to men.....	30.25
A. L. Shader.....	1.30
Weekly wages to men.....	39.00
Whitebreast Coal Co.....	5.25
Weekly wages to men.....	63.85
Cooper & Cole Bros.....	43.42
Dierks Bros.	15.98
Harris, cartage .....	.75
Weekly wages.....	54.80
"	50.25
"	36.65
"	55.75
John Vergaal	16.00
Pt. & Color Co.....	4.37
W. H. Exley.....	12.45
Cooper & Cole Bros.....	51.72
Weekly wages to men.....	41.50
R. Williamson & Co.....	26.60
Weekly wages.....	56.50
"	98.40
Cartage.	1.00
Weekly wages to men.....	131.90
Frt. on meters.....	4.60
W. H. Exley.....	8.60
Weekly wages.....	112.75
Adams Mfg. Co.....	23.90
D. N. Camp.....	125.00
Cooper & Cole Bros.....	242.33
Weekly wages.....	105.25
Thos. Graham	1.50
Weekly wages.....	117.00
Frt. on meters.....	4.50
Smelting Co. lead.....	100.00
Frt. on lead pipe.....	2.76
Weekly wages to men.....	198.00
Brown, cartage .....	.35
C. S. Hart.....	347.25
Dirks Bros. R. S. Young.....	3.53
Rehlaender Cook & Co.....	1.95
Rudge & Morris.....	4.97
Lincoln Drug Co.....	20.13

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Weekly wages to men.....	137.90
Cooper & Cole Bros.....	491.00
Whitebreast Coal Co.....	6.75
Clark Meter Prover.....	10.00
Rumsey & Co.....	38.01

McDonald & Co.....	310.10
Weekly wages to men.....	117.75
West. Supply Co.....	50.00
Weekly wages to men.....	178.25
Fagan, cartage	1.50
Telegram for meters.....	.40
M. Murphy, cartage.....	.40
Weekly wages to men.....	165.75
Frt. on gas meters.....	5.15
Nyaut & Mohr.....	1.50
Cartage, Drug Co.....	5.41
Weekly wages.....	110.00
Western Supply Co.....	163.64
R. S. Young, sand.....	4.00
Cartage .....	.75
Whitebreast Coal Co.....	47.90
Cooper & Cole Bros.....	468.61
W. H. Exley.....	13.25
Weekly wages.....	90.25
Adams Mfg. Co.....	3.75
Weekly wages to men.....	137.50
"	165.00
Chas. Reis cartage.....	3.25
Weekly wages to men.....	161.85

49—449.

1899 (Continued).

Construction:

Mayer Bros.	11.45
Whitebreast Coal Co.....	18.55
Fotch & Co.....	9.90
Lincoln Drug Co.....	12.41
W. H. Exley.....	12.95
Blador, cartage .....	.50
Cooper & Cole Bros.....	228.44
V. Carrigan	1.50
R. S. Young.....	24.25
C. E. Hedges.....	55.76
Weekly wages to men.....	246.50
Transfer Co.	1.50
Wittman & Co.....	1.50
Landers, carting dirt.....	1.25
Platt, cartage .....	.25
Cartage and freight on meters.....	6.10
McDonald & Co. meters.....	157.50
D. Broadrich .....	.90
W. J. Gardner.....	.30
Weekly wages to men.....	189.00
"	148.50
"	100.50
R. S. Young.....	39.75

Weekly wages to men.....	125.85
Wittman & Co.....	4.65
Western Supply Co.....	7.30
Pt. & Color Co.....	6.17

466

Dierks Bros.	54.82
Whitebreast Coal Co.....	36.00
Weekly wages to men.....	96.35
McDonald & Co.....	157.50
Cooper & Cole Bros.....	236.10
W. H. Exley.....	13.20
Frt. on crate meters.....	5.35
Weekly wages.....	92.75
".....	76.35
Frt. on lead pipe.....	2.20
Weekly wages to men.....	92.25
Western Supply Co.....	5.28
Frt. on Gas Meters.....	4.33
Pt. & Color Co.....	2.60
Cooper & Cole Bros.....	203.87
R. S. Young.....	20.00
Weekly wages to men.....	102.00
American Meter Co.....	325.50
Rumsey & Co.....	34.65
Weekly wages to men.....	139.50
Dennis Long & Co.....	200.00
Weekly wages to men.....	122.25
".....	53.25
Farrel, cartage.....	.50
Frt. on gas meters.....	4.85
Lincoln Drug Co.....	20.10
Weekly wages to men.....	53.25
C. A. Adams.....	6.25
Cooper & Cole Bros.....	246.36
Weekly wages to men.....	42.00
".....	102.00
".....	47.25
Laclede Fire B. Mfg. Co.....	865.80
Weekly wages to men.....	67.50
Cooper & Cole Bros.....	164.44
McDonald & Co.....	168.00
Weekly wages to men.....	81.90
Car saw-dust.....	22.00
Weekly wages to men.....	155.30
Ed Snyder.....	4.80
Fotch & Co.....	26.40
Weekly wages to men.....	115.36
Frt. on meters.....	4.33
Weekly wages to men.....	68.50

11,480.62

50—450.

1900.

Construction:

Searle & Chapen.....	5.05
Lincoln Drug Co.....	24.83
Dierks Lumber Co.....	18.00
Weekly wages to men.....	56.60
Cooper & Cole Bros.....	91.40
Becker Bros.	35.00
Williamson & Co.....	19.30
Weekly wages to men.....	53.40
Laclede Slip Grates.....	9.00
Weekly wages to men.....	79.95
Rivets .....	.55
Weekly wages to men.....	65.70
F. E. Parks.....	6.00
R. Lentka	18.00
Frt. on solder .....	.60

467

Weekly wages to men.....	72.60
Cooper & Cole Bros.....	48.84
McDonald & Co.....	131.25
Rumsey & Co.....	17.93
Weekly wages to men.....	90.15
“	30.60
R. L. Smith.....	25.50
Weekly wages to men.....	97.25
“	89.40
R. Lentka	20.00
C. E. Hedges.....	78.86
Cooper & Cole Bros.....	43.12
Weekly wages to men.....	55.70
Frt. retort cement.....	.60
Babcock & Co.....	9.50
Weekly wages to men.....	63.15
“	117.40
“	158.15
Lincoln Hardware Co.....	1.90
Humphrey Bros.....	10.95
R. Lentka	18.91
Weekly wages.....	193.20
R. L. Smith.....	.80
R. Williamson	38.57
Baum Hardwe. Co.....	1.00
J. H. McKee & Co.....	3.60
Cooper & Cole Bros.....	173.03
R. S. Young.....	21.00
Frt. on meters.....	4.50

Weekly wages to men.....	118.80
“	72.75
Dray and freight on lead pipe.....	3.11
Weekly wages to men.....	69.00
Young and Lincoln Hardware Co....	7.40
C. E. Hedges.....	44.97
W. C. Woore, cartage.....	1.00
Weekly wages to men.....	96.00
Frt. on meters.....	4.07
Cooper & Cole Bros.....	225.75
Rumsey & Co.....	33.40
D. McDonald & Co.....	147.00
Weekly wages to men.....	132.75
“	4.50
Weekly wages to men.....	205.00
“	150.00
Whitebreast Coal Company.....	2.80
Weekly wages to men.....	190.50
Cooper & Cole Bros.....	387.97
McDonald & Co.....	131.25
American Meter Co.....	147.00
Frt. on meters.....	4.16
Weekly wages to men.....	212.55
Lawlor, Expense to St. Louis.....	50.00
Weekly wages to men.....	285.75
Cartage .....	.50

51—451.

1900 (Continued).

Construction:

Weekly wages to men.....	363.85
F. Skinner	3.15
Frt. on lead pipe.....	1.45
Weekly wages to men.....	215.15
Frt. on gas meters.....	5.52

468

Humphrey Bros.	5.83
C. A. Ad-ms.	28.40
N. Y. Safety Repairs.....	5.33
American Meter Co.....	189.00
McDonald & Co.....	136.50
Cooper & Co.....	1,356.23
Frt. on meters.....	5.10
J. C. Van Riper.....	47.50
C. E. Hedges.....	58.83
J. C. Van Riper.....	28.80
Express on rubber bags.....	.30
Weekly wages to men.....	448.25
J. C. Van Riper.....	50.00

Lincoln Hardware Co.....	11.20
R. L. Caper.....	2.55
Frt. on meters and lead pipe.....	7.20
J. C. Van Riper.....	50.00
Cartage and Freight on Meters.....	3.10
C. Bauer	4.05
Baker, cartage .....	.25
Weekly wages to men.....	545.10
Stephen Carveth	1.25
Steve Evans	5.25
Chas. Johnson	6.00
Weekly wages to men.....	693.30
Wages to men.....	14.65
Wages to men laid off.....	30.75
Lincoln Drug Co.....	26.63
Wages to men laid off.....	30.00
D. W. Camp.....	12.00
Merchants Transfer	10.50
Frt. on meters, Geo. Else.....	9.70
C. A. Adams.....	51.82
G. N. Folmer.....	12.40
Weekly wages to men.....	738.30
Little & Hayes.....	25.10
G. W. Wilcox.....	7.90
Lincoln Hardware Co.....	16.90
Dierks Bros.	17.19
Humphrey Bros.	27.65
Ruge & Co.....	26.65
Western Tel. Co.....	12.72
Western Supply Co.....	599.40
Wages to men laid off.....	23.15
McDonald & Co.....	453.21
American Meter Co.....	189.00
Goodrich Gas Bags.....	3.00
Rumsey & Co.....	44.23
P. Sennie	5.25
Weekly wages to men.....	637.10
Marks & Hagenow.....	45.00
Frt. on car retorts.....	60.00
R. S. Young.....	353.20
Cooper & Cole Bros.....	1,291.70
Sundried	517.45
"	525.04
Munson & K. Tel. Co.....	1.50
Freight on retorts &c.....	83.30
Sundries	15.51
Hunter Printing Co.....	7.50
Wakefield & Hammell.....	24.00
Frt. on meters.....	5.80
Wages to men.....	9.25
Oil and <i>carefare</i>	1.00

469

Weekly wages to men.....	540.85
R. A. Luedtke.....	13.75
Brown Lumber Co.....	19.20
R. S. Young.....	38.25
Labor	200.00

52—452.

1900 (Concluded).

Construction Work:

Whitebreast Coal Co.....	17.50
Weekly wages to men.....	549.40
R. H. Lawlor.....	4.00
B. W. Richards.....	55.00
C. A. Adams.....	173.92
C. E. Hedges.....	19.31
Chas. Dorman	10.50
Wages to men.....	22.75
Weekly wages to men.....	464.50
Frt. on gas meters.....	6.05
Cooper & Cole Bros.....	1,948.04
D. McDonald & Co.....	456.75
L. M. Rumsey Mfg. Co.....	30.06
Frt. on gas meters.....	4.75
Johnson, cartage .....	.75
H. Kriger, laid off.....	2.25
Wages to men laid off.....	21.00
Johnson & Platt, cartage.....	1.50
Weekly wages to men.....	521.95
Wages to men laid off.....	49.10
"	16.00
"	26.95
Weekly wages to men.....	181.85
Frt. on lead pipe.....	2.88
	<hr/>
	\$22,538.31

1901.

Construction:

New Mains	12,187.31
New Services	17,311.20
New Tar Well.....	708.44
New Scrubber	1,914.76
New Benches	6,278.80
New Imps.	1,945.17
New Meters & Conns.....	7,731.56
New Office Furn. & Fix.....	120.00
New Gauge	54.00
New Works.....	5,092.61
	<hr/>
	53,343.85

1902.

Construction:

New Water Gas Set.....	7,466.57
Station Meter	5.75
Gas Works Wiring.....	84.83
Coke Screen	110.47
New Tar Well.....	193.28
Street Mains	23,954.47
New Services	15,672.61
Meters & Connections.....	6,811.22
Fuel Connections	1,125.35

55,424.53

470

1903.

Construction:

New Mains	5,619.78
New Services	8,979.50
New Meters & Connections.....	6,311.03
New Tar Plant.....	255.37
New Office	1,466.18
New Foul Main.....	23.39
New Well	42.75
Gas Works Wiring.....	10.09
New Storeroom	380.49
Gas Works Addition.....	65.00
Fuel Appl. Connections.....	511.09

23,664.67

1904.

Construction:

Gas Works	1,895.64
New Mains	4,198.09
New Services	7,874.45
New Meters & Connections.....	4,957.62
Office Furn. & Fix.....	269.57
Gas Works Wiring.....	49.31
New Blower	677.76
New Sewer	272.72
Economizer	143.93

20,359.09

53—453.

1905.

Construction:

Gas Works	1,569.70
New Mains	8,524.30
New Services	8,042.30
New Meters & Connections.....	241.42
Office Furn. & Fix.....	305.39
Gas Works wiring.....	70.87
New Blower	433.46

Economizer	1,033.57	
Coke Shutes	695.23	
		<hr/> \$20,916.24

1906.

Construction:

Gas Works	2,556.57	
New Mains	6,341.56	
New Services	4,866.26	
New Meters & Conns.....	546.43	
Office Furn. & Fix.....	321.50	
		<hr/> \$14,632.32

1907.

Construction:

Gas Works additions.....	\$522.23	
Street Main Extensions.....	1,844.02	
New Service pipes.....	2,537.36	
Meters and Connections.....	887.02	
Office Furniture and Equipment.....	359.51	
		<hr/> \$6,150.14

454.

471

EXHIBIT #130.

150 Undivided Profits	\$110,040.00	
286 To Interest on Bonds....		\$110,040.00
287 Sundries. To Profit & Loss.....		\$246,840.71
150 Undivided Profits	\$117,365.03	
135 Western Gas Construction Co.....	475.68	
3 Inventory	\$129,000.00	
287 Profit & Loss. To Sundries.....	\$626,775.75	
56 Capitol National Bank.....		\$11,775.75
139 Additional Stock.....		\$450,000.00
300 Bond Dividend.....		\$165,000.00
395 Gas Stoves	378.30	
397 To Stove Rent.....		378.30

472 In the Circuit Court of the United States for the District of
Nebraska, Lincoln Division.

THE LINCOLN GAS & ELECTRIC LIGHT COMPANY, Complainant,
vs.

THE CITY OF LINCOLN, NEBRASKA, FRANCIS W. BROWN, Mayor,
et al., Defendants.

UNITED STATES OF AMERICA,
District of Nebraska,
Lincoln Division, ss:

I, Myron E. Wheeler, Examiner, hereby certify that the foregoing
testimony in the above entitled case was taken before me, at the
times and places in the record thereof indicated; that before testify-

ing, each of the several witnesses was by me severally and duly sworn to tell the truth, the whole truth, and nothing but the truth; that said testimony was taken in short-hand, and by me transcribed, and by consent of parties the signatures of the respective parties to their extended depositions, was waived.

MYRON E. WHEELER,
United States Examiner.

Chgs. \$76.20.

Endorsed on cover: File No. 21,744. Nebraska C. C. U. S. Term No. 83. The Lincoln Gas & Electric Light Company, appellant, vs. The City of Lincoln et al. Filed July 3, 1909. File No. 21,744.

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1911

THE LINCOLN GAS & ELECTRIC LIGHT COMPANY

THE CITY OF WASHINGTON

1911

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1911

NO. 83

THE LINCOLN GAS & ELECTRIC LIGHT COMPANY,
APPELLANT,

vs.

THE CITY OF LINCOLN, ET AL.

BRIEF OF APPELLANT.

I.

Statement of Case.

The jurisdiction of the Circuit Court was invoked upon the ground that the case arose under the Constitution of the United States. The complainant is a corporation operating a manufacturing and distributing plant, by which it serves the industries and inhabitants of the City of Lincoln, Nebraska,

with artificial gas for light and fuel. The case presented by the bill involves the constitutional validity of a gas rate ordinance approved by the mayor November 19, 1906, to become operative by its terms, from and after December 1, 1906, in the words following (printed record, p. 9):

An Ordinance Regulating the Price of Manufactured Gas, Establishing Penalties for the Violation of the Provisions of this Ordinance, and Repealing all Ordinances in Conflict Herewith.

Be it ordained by the Mayor and Council of the City of Lincoln:

Section 1. No gas company shall charge, exact, demand or collect from any consumer for gas manufactured or sold in the city of Lincoln for illuminating or heating purposes more than the sum of One Dollar net per one thousand cubic feet, provided that any gas company may add a penalty of not more than ten cents per one thousand cubic feet for non-payment after six days from the date said gas company has furnished a bill or statement to any consumer; and provided further that a minimum monthly charge of twenty-five cents a month for a single service may be collected.

Section 2. The provisions of this ordinance shall apply to all companies which manufacture or distribute gas for sale for illuminating or heating purposes, and the term "gas company" shall include all persons, firms, corporations or individuals who manufacture or sell gas for illuminating or heating purposes.

Section 3. Any gas company, and any executive officer, president or manager of any gas company who shall violate any provision of this ordinance shall be deemed guilty of a misdemeanor and on conviction thereof shall be fined in any sum not less than Ten Dollars, nor more than One Hundred Dollars, and a violation thereof for each calendar day or part thereof shall constitute a separate offense.

Section 4. All ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.

Section 5. This ordinance shall take effect and be in force from and after December 1, 1906, after its passage, approval and publication, according to law.

The bill assails the ordinance rate of one dollar per thousand feet on the ground that the revenues which that rate will yield to complainant are inadequate and insufficient to meet the cost of manufacture and distribution, operation, maintenance and depreciation, and yield a fair return on invested capital, and if enforced would operate as a condemnation and confiscation of complainant's property to the public use without compensation.

The bill tenders the further issue that an occupation tax ordinance, imposing upon complainant an occupation tax of two and one-half per cent of its gross receipts from distribution and sale of gas, is violative of the fourteenth amendment to the Constitution of the United States. The tax ordinance (printed record, pp. 17-18) is as follows:

An ordinance for and assessing an occupation tax upon all gas companies manufacturing and furnishing gas to the inhabitants of the City of Lincoln, fixing the amount thereof, providing for the enforcement and collection thereof and providing interest and penalty for non-payment when due and payable, and designating the funds to be credited with the amount so paid.

Be it ordained by the Mayor and Council of the City of Lincoln:

Section 1. That all gas companies manufacturing and furnishing gas to the inhabitants of the City of Lincoln are hereby required to pay an occupation tax, and the amount thereof as hereinafter specified is hereby assessed against said company or companies.

Section 2. That all gas companies manufacturing and furnishing gas to the inhabitants of the City of Lincoln are hereby required to pay the City of Lincoln as an occupation tax the sum and amount of Two and a half per cent ($2\frac{1}{2}\%$) of the gross receipts of said company, derived from its business of manufacturing and furnishing gas to the inhabitants of the City of Lincoln, payment thereof is to be made as follows: Beginning with January 1, 1907, said gas company or companies shall on the 15th day of each and every month there-

after pay the City of Lincoln Two and a half per cent ($2\frac{1}{2}\%$) of the gross receipts of said gas company of the preceding month, as hereinabove provided, as an occupation tax and all deferred payments shall draw interest at the rate on one per cent (1%) per month, and after payment has been in default for six months, a penalty of five per cent (5%) shall be added thereto in addition to the interest charge, and shall be paid by said company or companies.

Section 3. All such gas companies on the 10th day of each month, as hereinafter provided, shall file with the City Clerk a full, complete and detailed statement of the income and operating expenses and other charges of said gas company for the preceding month, and said statement shall be duly verified and sworn to by the managing officer of any such gas company or companies, and the City of Lincoln shall have the right at any and all times during business hours to inspect, thru its officers, agents, or representatives, the books and records of any such gas company or companies for the purpose of verifying such report or reports. Provided, however, that in case any such gas company or companies shall refuse, fail or neglect to furnish or file such report at the time or times specified, or shall refuse to permit the City of Lincoln, thru its officers, agents or representatives, to inspect the books and records of any such company for the purpose of verifying such report or reports, then and in that event the occupation tax for the preceding month shall be and is hereby fixed and determined to be the sum and amount of One Thousand Dollars and said amount shall draw interest at the rate of one per cent (1%) per month after due and payable, and in addition thereto a penalty of five (5%) per cent for failure to pay within six months.

Section 4. In case any such gas company or companies shall fail to make payment of the occupation tax as hereinabove provided, and at the time or times hereinabove specified, the City of Lincoln shall have the right and may sue any such gas company or companies in any court of competent jurisdiction for the amount of occupation tax due and payable under the terms and provisions of this ordinance, and may recover therein a judgment against any such gas company or companies for the amount so due, together with interest and penalties, and may have execution thereon.

Section 4½. Said occupation tax shall be paid to the City Treasurer of the City of Lincoln, at the time specified in this ordinance, and he shall issue and deliver a receipt therefor, upon the payment thereof, and the amount so paid shall be credited by the City Treasurer to the general fund of the City, unless otherwise directed by the Mayor and Council.

Section 5. All ordinances and parts of ordinances in conflict herewith are hereby repealed.

Section 6. This ordinance shall take effect on January 1, 1907, after its passage, approval and publication according to law.

The bill charges that complainant in its business of manufacturing, distributing and selling gas for light and fuel, comes in direct competition with the Lincoln Traction Company, which is supplying the industries and people of the same city with electricity for light, heat and power, and that the ordinance was intended to discriminate against complainant in its gas lighting business and in favor of the electric business of the Lincoln Traction Company, and to deprive complainant of the right and power to compete in its gas department with the electric light, heat and power business of the Lincoln Traction Company, and charges, that if enforced, the ordinance would operate as such discrimination to the pecuniary embarrassment and ruin of complainant's gas business. Upon the ground stated, it was expressly charged that the ordinance would operate to deprive complainant of the equal protection of the law and would impose a discriminatory burden upon complainant not imposed upon complainant's competitor in business, in violation of the fourteenth amendment to the Constitution of the United States, providing that no State shall deprive any person of property without due process of law, nor deny to any person within its jurisdiction the equal protection of the law.

The bill premises its assault upon the ordinances by a full recital of the organization of complainant as a corpora-

tion and the rights and franchises of predecessor companies, to which it succeeded by purchase; sets forth the ordinances by which defendant city, in times past, granted franchise rights for the use of the streets, alleys and public grounds for the conduct of its business; and embodies a description of its manufacturing and distributing plants, which acceptance of its franchise privileges made it necessary to acquire and maintain at an alleged cost of One Million Dollars (printed record, pp.3-9).

Incidental to the main issues, the bill tenders the validity of complainant's claim to a perpetual franchise under the grants of the City of Lincoln by the ordinances set forth therein, the value of which the court is asked to consider with complainant's other properties in determining the amount of its capital upon which it is entitled to receive a fair return and income.

The answer admits complainant's corporate capacity and power and its acquisition of the property rights of the predecessor company named in the bill. The answer also admits the passage of the several franchise ordinances, but tenders a legal issue upon the construction thereof that the rights so conferred were during a limited term of twenty-one years, ending March 9, 1893, and avers that since the expiration of that period, complainant and its predecessors have continued in the use of said privileges by sufferance only, subject to termination at the will of the city.

The answer further admits the passage of the rate ordinance questioned, asserts its validity, and avers that the price limited "would cover the cost thereof and in addition would pay the necessary expenses of such lighting plant, together with a reasonable dividend on the reasonable and necessary cost of such plant," and alleges specifically that complainant's outstanding stock and bonds do "not represent the amount of capital reasonably necessary to construct, equip and operate

complainant's lighting system" and "the replacement and present value thereof does not exceed \$500,000, and said last sum more than represents the capital necessarily invested in the construction, maintenance and operation of such a lighting system."

The answer also admits the enactment of the occupation tax ordinance, on December 10, 1906, and alleges that the same is a legal and valid ordinance in full force and effect. (Printed record, pp. 31-33.)

In addition to the issues above defined, the bill contained charges of fraud against the members of the City Council in the passage of the ordinance and coercion and intimidation by which the councilmen were deprived of their free agency. The answer contained an exception to this paragraph of the bill, as scandalous. Before the proofs were completed or the cause heard in the Circuit Court, this court, in *Chicago, B. & Q. R. Co. v. Babcock*, 204 U. S. 592, 593, sharply condemned the practice of charging political duress. Yielding to the high authority of that case, and accepting its better views of propriety, complainant abandoned the issue. Mention of it is here made only to disavow any reliance upon that averment, which was incidental only, and which was not related to the general charge that the rate was inadequate and confiscatory. Perhaps the most simple course would have been to confess the exceptions and expunge the paragraph in question from the bill. Since it is now too late to pursue that course, the averments alluded to are withdrawn and may be regarded as surplusage and dead matter.

The lower court found the total value of complainant's investment in its gas plant, upon which it is entitled to a reasonable return, to be \$566,073.59 (printed record, p. 43). The lower court, as indicated by its written opinion, found expressly that the complainant was not entitled to receive any return upon the value of its perpetual franchise to conduct its

business in and under the streets and public ways of the City. We shall show hereafter, that the trial judge, in arriving at the value of complainant's property, did not include any sum on account of interest on the moneys employed without profit during the period of construction, and until its plant could be put in operation upon a revenue basis, and allowed nothing on account of steam boilers necessarily employed in generating steam used in the manufacture of gas. The trial judge fixed the rate of annual depreciation of complainant's properties at \$8,000 per year only, being 1.4 per cent. of the sum which he found to be the total value of the property upon which it is entitled to a reasonable return. The smallest permissible per centum of depreciation shown by complainant was 5 per cent. per annum of the total value of the plant. The trial judge, as shown by his opinion (printed record, pp. 41-45), found that six per cent. of the total value of the properties employed would be an adequate return, whereas, the lowest rate of return permissible under the proofs of complainant, was eight per cent. per annum.

The trial judge found that the volume of business of complainant during the first year following the passage of the ordinance, would have yielded, at the ordinance rate, on the assumption that the occupation tax was void and that 1.4 per cent. was sufficient to cover depreciation, a return of only 5.2 per cent. on the actual value of complainant's properties.

The assault tendered by the bill upon the occupation tax ordinance presented the sole issue that the ordinance was arbitrary and discriminatory in singling out the gas business and leaving complainant's competitor in the electric light business free from a like tax burden, in violation of the equality clause of the fourteenth amendment to the constitution of the United States. The parties to the suit were all citizens of Nebraska, and the bill was drawn upon the theory that the occupation tax ordinance, like the rate ordinance, could only be

assailed in a court of the United States upon the ground that it was violative of the Constitution of the United States. The proofs and arguments below were directed to the issue arising under the federal constitution only. The lower court expressed no opinion upon the issue presented; but did express the opinion (printed record, p. 44) that the tax ordinance was violative of the Constitution of the State of Nebraska. The final decree dismissing the bill of complainant, was as follows (printed record, pp. 45-46):

This cause came on for hearing upon the pleadings and the evidence and the argument of counsel having heretofore been submitted to the court, and upon due consideration whereof the Court finds for the defendants and finds no equity in the bill of complaint, so far as the same relates to the ordinance of the City of Lincoln establishing a rate of charges for gas in such city, and the same is hereby dismissed and the restraining order heretofore granted against the enforcement of such ordinance is hereby dissolved, without prejudice to the commencement of a new action.

The Court further finds that the ordinance of the City of Lincoln levying an occupation tax against the complainant violates the constitution of the State of Nebraska, and is for that reason illegal and void, and that the enforcement of the same as to complainant should be perpetually enjoined.

It is therefore adjudged and decreed that a permanent injunction be and the same is hereby granted perpetually enjoining the City of Lincoln from enforcing said occupation tax ordinance.

It is further adjudged that the complainant pay the costs of this action.

It will not escape notice that the final decree follows the opinion and contains a specific finding that the occupation tax ordinance is void because violative of the "Constitution of the State of Nebraska." Treated as an independent issue, the judgment against the validity of the occupation tax ordinance, based wholly upon an interpretation of the local state constitution, in a suit between citizens of the same state, is obviously

a mere nullity, because the subject matter is not one of cognizance in the courts of the United States, and the issue ruled is not tendered by the bill. In such case the judgment would be no bar to the collection of the taxes imposed, and the amount of the occupation tax if enforced would, under the court's findings, operate still further to reduce the inadequate return or profit to complainant. As an incident to the determination of the main issue touching the adequacy of the rate, the court, perhaps, had power to determine the invalidity of the tax ordinance. The exceptions upon which this appeal was sued out (printed record, pp. 49-50) are shown in the following

Assignments of Error.

1. That the United States Circuit Court in and for the District of Nebraska erred in dismissing complainant's bill, in so far as it relates to the ordinance of the City of Lincoln establishing a rate of charges for gas in such City.

2. In dissolving the restraining order theretofore granted by said court against enforcement of the ordinance of the City of Lincoln establishing a rate of charges for gas in such City.

3. In finding and determining that the plant of the complainant could be reconstructed for the sum of \$565,741.76.

4. In finding and determining that there should be deducted from the said \$565,741.76 the sum of \$49,688.17 for depreciation.

5. In finding and determining the present value of complainant's plant to be \$516,073.59.

6. In finding and determining the present value of complainant's buildings to be \$24,643.00, the proof showing affirmatively that the cost of said buildings and the present value thereof to be \$37,286.00.

7. In finding and determining the value of the meter connections to be \$6,304.00, the proof showing affirmatively the cost and value thereof to be \$13,184.00.

8. In finding and determining the item of contingent expense to be \$25,000.00, the proof showing affirmatively the item to be \$67,884.00.

9. In finding and determining the cost of organizing the Company to be \$3,000.00, the proof showing affirmatively the cost to be \$24,950.00.

10. In finding and determining that nothing should be allowed as interest on the money employed in constructing the plant during the course of its construction, the proof showing affirmatively the item to be \$31,550.00.

11. In finding and determining that nothing should be allowed covering the expense of obtaining the money for the original cost of complainant's plant, the proof showing affirmatively the item to be \$149,512.10; and in finding and determining that there should be nothing allowed in the way of interest on the above item, the proof showing affirmatively the amount to be \$7,500.00.

12. In finding and determining that nothing be allowed for the franchise in fixing and determining the value of complainant's property or plant, the proof showing affirmatively the value of such franchise was in excess of \$100,000.00, and that the complainant was taxed thereon by the City of Lincoln on a valuation of \$60,000.00.

13. In finding and determining that the complainant should be allowed for depreciation on its plant or property the sum of \$8,000.00 per year only, the proof showing affirmatively that a reasonable annual sum for such depreciation would be five per cent. of the value of complainant's property.

14. In finding and determining that the ordinance in question was valid, notwithstanding the proof showing affirm-

atively that under the ordinance the complainant would be required to serve more than seventy-five per cent of its patrons at less than cost.

15. In finding and determining, based on the earnings for the year 1907, that fifty-two and a fraction mills net profits on the valuation found and determined by the court would not deprive complainant of its property without just compensation, in violation of the provisions of the constitution of the United States.

16. In not finding and determining the validity of complainant's franchise, and the life of said franchise.

17. In not finding and determining the invalidity of the ordinance, based on the value of complainant's property and the net earnings thereof as of the date said ordinance was passed and took effect according to its terms, to-wit: December 1, 1906.

II.

Any deprivation of the right of a public utility company to a reasonable return upon the value of its property devoted to the public service, accomplished by legislative adoption of inadequate rates, is a deprivation of property without due process of law, and a confiscation thereof to the public use without just compensation, and a denial of the equal protection of the laws, in violation of the fourteenth amendment to the Constitution of the United States.

The constitutional right of appellant to just compensation for the service rendered, including a fair return on the value of the property employed in that service, is so well established that discussion of this preliminary issue may be omitted. Where a public utility company is deprived of the power of charging reasonable rates for the use of its property, it is thereby deprived of its property in substance and in fact,

and in so far as it is thus deprived, while other persons are permitted to receive reasonable profits on their invested capital, the company is denied the equal protection of the law, contrary to the fourteenth amendment. (*Chicago, M. & St. P. R. Co. v. Minnesota*, 134 U. S. 418; *Reagan v. Farmers L. & T. Co.*, 154 U. S. 362; *Smyth v. Ames*, 169 U. S. 466; *San Diego L. & T. Co. v. National City*, 174 U. S. 739; *Chicago, M. & St. P. R. Co. v. Thompson*, 176 U. S. 167; *Minneapolis & St. L. R. Co. v. Minnesota*, 186 U. S. 257; *Atlantic C. L. R. Co. v. North Carolina Corp Com.*, 206 U. S. 1.)

III.

Appellant's case as made by the proofs, ought not to be prejudiced by the circumstance that it sought injunctive relief in the first instance, without submitting to the confiscatory rates.

Issues as to the adequacy of rates are sometimes difficult of solution. The proofs directed to such issues are not infrequently voluminous and complicated. Out of the difficulties which sometimes attend judicial determination of such issues, has grown suggestions of the desirability of first putting the unlawful rates into effect, for a season, so that statistics may be compiled from actual experience and laid before the court called upon to adjudicate the issue. The suggestion apparently has in view the presentation to the court of statistics derived by actual experience in first submitting to an unconstitutional and void statute, in order to relieve the administration of justice from possibility of error. As a principle of jurisprudence, the practice of first putting an unconstitutional act in force and withholding judgment until after its destructive power has first been visited upon the suitor, does not square with our constitutional guaranties of the inviolability of life, liberty and property. The requirement of due process makes

it necessary, in orderly sequence, that a determination of the issue, even at the risk of possible error, shall precede the execution. If appellant, by the experiment of submitting to the unconstitutional exaction, had been forced into insolvency and suspension of its corporate functions and powers, the subsequent adjudication, based upon that experience, that the rate assailed was confiscatory, would leave it empty-handed, without any practical comfort or redress. However desirable, from the standpoint both of the court and the suitors, it might be to furnish demonstrative proofs beyond the possibility of a mistake, derived from actual experience, the situation which appellant faced made its continued existence incompatible with that course of procedure.

At the taking effect of the ordinances in question, and for some time previous thereto, appellant was in pecuniary straits. Its five-per cent. bonds would not command more than a ruinously low price, and its seven per cent. notes, offered at a commission or discount of two per cent. and collateraled by double their face in mortgage bonds, could not command any part of \$100,000, of which appellant had immediate need. (Per General Manager Honeywell, printed record, pp. 107-108.) Appellant's evidence in chief was taken before an examiner in 1907, after it had operated eight months under the protection of the restraining order issued by the Circuit Court. The situation which confronted appellant on the passage of the ordinances assailed, is thus stated by Mr. Honeywell, its general manager (printed record, pp. 114-115):

Q. Take the report for the year ending June 30th, 1907, and tell me what was the aggregate of the sales of gas for that year? A. Total from gas alone was \$200,693.39.

Q. Give it in number of thousands of ft. sold? A. 167,445,600.

Q. What did you realize from that in money? A. \$200,693.39.

Q. If the net maximum rate, after discount, was \$1.00 per thousand ft. what would you have realized on it? A. \$167,445.60.

Q. And if you had been paying an occupation tax in addition to your ad valorem property tax of $2\frac{1}{2}\%$ on the output, what would have been the amount of the occupation tax? A. \$4,186.14.

Q. What were your net revenues based upon the rate in force of \$1.20 net that would be applicable to interest, investment and depreciation? A. \$64,646.35.

Q. What would have been your net revenues in the same business applicable to interest on investment and to depreciation on the same volume of business if your rate had been \$1.00 and in addition to your general property tax you had been subjected to an occupation tax of $2\frac{1}{2}\%$ on gross receipts? A. \$27,212.42.

Q. What is your knowledge as to whether or not that sum would be adequate to meet the item of depreciation in the values of the properties employed in the plant alone? A. It would be inadequate.

Q. What profit would the company have been able to make upon the capital invested in its business? A. It would not have been able to make any profit.

Q. Upon the experience of last year, you may state from your knowledge of the business of this company, whether the rate of \$1.00, if the occupation tax of $2\frac{1}{2}\%$ on gross receipts had also been exacted, would have equalled the actual cost of the service, not counting anything for profit or interest on investment? A. No, sir.

After detailing the organization and operations of a new business department by which complainant had previously canvassed every tenement in town and kept a card record of its gas equipment, and endeavored to attain the maximum consumption of gas, to maintain its revenues in the face of a previous reduction, Mr. Honeywell, the manager, gave his conclusions of the effect of enforcement of the ordinance in contest, as follows (printed record, p. 178):

Q. Is it possible under the dollar rate to make up the shrinkage in the loss? A. No it is out of the question.

Q. What is your opinion as manager of this plant whether there would be any way of maintaining your revenues up to the standard, to maintain your plant, at one dollar in this city today? A. No, sir. That reduction would give just one-sixth on all unprofitable consumers and would make them just one-sixth more unprofitable. You take one-sixth away from the profitable consumers it isn't enough that you would gain to make up the difference because it isn't enough even then to get the industrial business, and it is too much for the man to pay that wants it.

The sworn testimony of complainant's manager shows the vigorous campaign carried on to avoid insolvency from previous reductions in rates. Complainant was in pecuniary distress while operating on a rate twenty cents higher than that prescribed by the ordinance and before the imposition of the $2\frac{1}{2}\%$ occupation tax. Its effort to command any part of its present need of \$100,000.00 was ineffectual. It had already exhausted every field of available patronage and was unable to operate and maintain its plant at the reduced rate. From the viewpoint of appellant, the overthrow of the ordinance was necessary to its existence. It faced the alternative of insolvency or of overthrowing the ordinance rate for inadequacy. That situation, regarded either in the interest of the public or of appellant, made experimentation with the inadequate rate one of utter folly and recklessness. It left to a manager holding the views entertained by Mr. Honeywell, no choice as to the appropriate course of action. Attack upon the ordinance and suspension by injunction of the inadequate rate was inevitable and unavoidable to any serious manager, sensitive of his own responsibility both to the public and to the bond holders of appellant.

This court has uniformly held that submission to an inadequate and confiscatory rate is not a condition precedent to invoking the powers of the courts of the United States to arrest the operation of such rates and restrain the confiscation of private property. We may well question whether sometimes

too much weight is not given to the circumstance that demonstrative proof of actual experience under the rate is not available, and whether, in circumstances like appellant's, too little weight has not been accorded to its experience in the past, of which statistical information is adduced. The circumstance that the rate here assailed has not been put into effect, cannot justly, on the testimony referred to, be made the occasion of reflection or reproach upon appellant, nor employed to overcome the logical and rational inference of the inadequacy of the rate assailed, as shown by the evidence adduced.

In *Wilcox v. Consolidated Gas Co.*, 212 U. S. 40, Mr. Justice PECKHAM, in answering a criticism made by appellants of the lower court, said:

"They assume to criticise the court for taking jurisdiction of this case, as precipitate, as if it were a question of discretion or comity, whether or not that court should have heard the case. On the contrary, there was no discretion or comity about it. When the Federal Court is properly appealed to in a case over which it has, by law, jurisdiction, it is its duty to take such jurisdiction, (*Cohen v. Virginia*, 6 Wheat. 264, 404), and, in taking it, that court cannot be truthfully spoken of as precipitate in its conduct. That the case may be one of local interest only, is entirely immaterial, so long as the persons are citizens of different states, or a question is involved which, by law, brings the case within the jurisdiction of a federal court."

In the same opinion (*Wilcox v. Consolidated Gas Co.*, 212 U. S. 42) Mr. Justice PECKHAM further said:

"Of course, there may be cases where the rate is so low, upon any reasonable basis of valuation, that there could be no just doubt of its confiscatory nature; and in that event there should be no hesitation in so deciding, and in enjoining its enforcement, *without waiting for the damage which must inevitably accompany the operation of the business under the objectionable rate.*"

So while demonstrative proofs derived from actual submission to the ordinances assailed, would have been desirable

from the standpoint of appellant, and the court, and would have simplified the determination of the issue, the precedent referred to, which expresses the undeviating rule of this court, entitles appellant to a consideration and judicial determination of the issues tendered, since the reduction of its revenues was so radical as to make experimentation with the rate assailed impracticable and impossible. In this situation, the issue is to be determined upon the best proofs available.

IV.

The inviolability of property, under the rule of the Constitution, prohibits establishment of gas rates in Lincoln, Nebraska, at a rate so low as to deprive the capital employed in that service of a smaller rate of earning than eight per cent.

The trial court found that appellant's plant had been kept in a good state of preservation and needed repairs had been fully made. The proofs show the ratio of capital investment to the output of the plant to be unusually small. This is not one of those exceptional cases in which the invested capital is disproportionate to the service rendered and in which the rate necessary to produce adequate earnings on capital invested would be exorbitant or excessive for the service rendered. The adjustment of appellant's rates on the basis of fair earnings on the value of its property employed, does not involve the charge of any exorbitant rate to the public in view of the particular service rendered. At the organization of the industry capital was offered a maximum rate of \$5 per thousand feet of gas by city ordinance.

In determining the lowest rate to which a municipality may justly reduce the earnings upon the property devoted to a public service enterprise, a number of factors should be considered. The population of the city, the character of the business, its stability, its ability to command funds for its needs,

its risks, the current local interest rates, the rates of interest fixed by statute in the absence of contract, and the highest rates permissible by statute, are, among others, necessary factors for consideration.

Where the public policy of the state, declared by statute, gives all persons the right to contract for a maximum rate of interest for the mere loan of money, it seems irrational to hold that the State, or any municipality therein, may restrict the earnings of funds employed in hazardous industrial enterprises, to a smaller rate than that freely granted to all persons for the mere loan of money, not involving the hazards of industrial operations.

It will be pertinent to note a recent ruling of this court, determining the lowest permissible rate to which the earnings on capital invested in a gas enterprise could be reduced by legislative enactment. In *Wilcox v. Consolidated Gas Co.*, 212 U. S. 51, Mr. Justice PECKHAM said: "Of course, there is always a point below which a rate could not be reduced, and at the same time permit the proper return on the value of the property." In the New York case, instituted some four months after the filing of appellant's bill herein, it was agreed that the complainant monopolized "the gas service of the largest city in America, and is secure against competition under the circumstances in which it is placed" and "the court below regarded it as the most favorably situated gas business in America." In determining, under these circumstances, the last point to which the legislature of New York could reduce the earning power of the Consolidated Gas Company, and stating the limit of the reduction beyond which legislative action would amount to confiscation, Mr. Justice PECKHAM (212 U. S. 49) said:

"The court below regarded it as the most favorably situated gas business in America, and added that all gas business is inherently subject to many of the vicissitudes of manufac-

turing. Under the circumstances, the court held that a rate which would permit a return of six per cent. would be enough to avoid the charge of confiscation, and for the reason that a return of such an amount was the return ordinarily sought and obtained on investments of that degree of safety, in the city of New York. Taking all facts into consideration, we concur with the court below on this question, and think complainant is entitled to six per cent. on the fair value of its property devoted to the public use."

The lower court, in the present case, upon fixing a valuation of appellant's properties at \$566,073.59, taking the experience of the most favorable period of one year and eliminating the occupation tax of $2\frac{1}{2}\%$, figured that if the same business had been done upon the rate of one dollar, there would have been a net return of 5.2 per cent. The court thereupon concluded: "While complainant, I think, is entitled to at least six per cent. upon the money invested, it does not appear that the reduced rate would not yield that sum." It is thus shown that the standard of return upon appellant's invested capital, below which a municipal reduction would amount to confiscation, was fixed by the lower court at the same rate as that applied by this court in the case of the *Consolidated Gas Company* of New York. This rule was applied by the lower court upon express reference to that case. (Printed record, pp. 44-45.)

Before noting the differentiating circumstances which make it impossible to bring the two properties to the same level of earnings upon invested capital, it is appropriate to recall the following observations made by Mr. Justice PECKHAM in expressing the unanimous opinion of this court in *Wilcox v Consolidated Gas Company*, 12 U. S. 48, 49:

"There is no particular rate of compensation which must in all cases, in all parts of the country, be regarded as sufficient for capital invested in business enterprises. Such compensation must depend greatly upon circumstances and locality;

among other things, the amount of risk in the business is a most important factor, as well as the locality where the business is conducted, and the rate expected and usually realized there upon investments of a similar nature, with regard to the risk attending them. There may be other matters which, in some cases, might also be properly taken into account in determining the rate which an investor might properly expect or hope to receive, and which he would be entitled to without legislative interference. The less risk, the less right to any unusual returns upon the investment. One who invests his money in a business of a somewhat hazardous character, is very properly held to have the right to a larger return, without legislative interference, than can be obtained from an investment in government bonds or other perfectly safe security. The man who invested in gas stock in 1823 had a right to look for and obtain a much greater rate upon his investment than he who invested in such property in the City of New York years after the risk and danger involved had been almost entirely eliminated."

In addition to the factors enumerated above by Mr. Justice PECKHAM, it may be suggested that the length of the term and the conditions of the franchise privileges, and the likelihood of stability or instability of established rates, are also of paramount importance. A rate established by a legislative body that meets but every biennium gives assurance that it will subsist for at least two years; while one adopted by a municipal body or board that sits perpetually, is subject to more frequent change. In the light of these suggestions and the authoritative considerations quoted, let us compare the circumstances of the two gas companies which the trial court put on a level in respect to the percentum of capital which may be claimed for net earnings as a constitutional right.

Appellant serves the City of Lincoln, Nebraska, which by the census of 1900 had a population of 40,169 and by the census of 1910, a population of 43,973. The consolidated Gas Company serves the City of New York, which by the census of 1900 had a population of 3,437,202, and by the census of

1910, a population of 4,766,833. The City of New York granted a gas franchise in 1823—forty-four years prior to the platting of the Villiage of Lincoln in the geographical center of the United States, and fifty years before Lincoln, by ordinance, offered a rate of \$5.00 per thousand feet to induce capital to invest in a gas enterprise in a country village. The lower court found the value of the properties of the Consolidated Gas Company to be \$59,831,435; and the lower court, in the present suit, found the value of appellant's property to be \$566,073.59. If the population to be served by appellant be multiplied by one hundred, it will not then equal the present population of New York City, and if the value of its manufacturing and distributing plant, as found by the lower court, be multiplied by one hundred, it will then lack upwards of \$3,000,000 of equaling that of the Consolidated Gas Company. New York is a seaport, a world center of population, trade, commerce, industry and finance; it has the lowest and best market in America for capital, fuel and supplies of every kind employed in the manufacture and distribution of gas; its territory is closely and fully occupied by permanent and enduring tenements; its population, wealth, trade, commerce and industry would support and maintain an empire. The gas industry of this empire, concentrated within the bounds of one city, is monopolized by the Consolidated Gas Company; and so far as this court could look into the future, it seemed unavoidable that its monopoly would be perpetual. The congestion of its streets by the traffic of two continents is now prohibitive of their being obstructed for the installation of competitive gas plants. The Consolidated Gas Company, said Mr. Justice PECKHAM (212 U. S. 49) "is secure against competition under the circumstances in which it is placed, because it is a proposition almost unthinkable that the City of New York would, for purposes of making competition, permit the streets of the city to be again torn up in order to allow the

mains of another company to be laid through them to supply gas which the present company can adequately supply." '

The constitutional guaranty of the inviolability of private property was held prohibitive of legislative reduction of the earnings of the Consolidated Gas Company to a lower rate than six per cent. of the value of the property employed in the service. The adoption of the same standard at Lincoln, Nebraska, by the lower court, under the circumstances and local conditions shown, was not warranted either by sound reason or precedent. Without any disrespect to the lower court, the comparison makes the adoption of a six per cent. basis at Lincoln, seem almost grotesque.

Mr. Frank Frueauff, a member of Henry L. Doherty & Co., New York, of wide experience in managing gas properties in cities of this class and smaller cities, estimated eight per cent. as a fair return on the capital invested in the Lincoln plant. (Printed record, p. 214.) The same witness testified that a plant like that at Lincoln could not be financed at a lower interest return than seven and one-half or eight per cent. (Printed record, p. 218.) If the financing were done through a bond issue bearing five per cent. the bonds would have to be disposed of at a discount in excess of twenty per cent (printed record, p. 218); and even then, the company would be required to show net earnings above ten per cent. upon the face of the entire bond issue. (Printed record, p. 216.)

Michael E. Malone, long and actively engaged in the gas business, testified that, at the time of the hearing, twenty per cent. of the principal would be the cost of financing. (Printed record, p. 88.) That is, in financing an enterprise in a town like Lincoln by mortgage bonds bearing five per cent. interest, the net proceeds of the bonds would not exceed eighty per cent. of the principal of the bonds sold.

We do not present these facts, in this connection, as an argument in favor of adding the amount of the discount on the principal of the bonds to the actual values of the properties, for the ascertainment of the total sum on which appellant is entitled to derive a revenue. These facts show, however, that while the nominal interest rate on funds borrowed is only five per cent., the actual cost to appellant is a much higher rate. In floating a security bearing a lower rate of interest than the particular enterprise can command in the market, the reduced interest rate must be compensated by discounting the principal. The interest burden that falls upon the enterprise and the public is precisely the same as though bonds bearing eight per cent. (the market rate which this particular industry will command) had been sold at par. Where the actual values of the properties are ascertained for the purpose of testing the adequacy of the service rate, the necessary discount made to market a five-per cent. security must be taken into account in order to find what rate of return is requisite to command capital for the enterprise. In the present case, the trial court disregarded the amount of the bonded debt as grossly excessive and adopted a low rate of income, approximating the low rate of interest obtained by allowing heavy discounts from the principal of the bonds. The injustice of this process is obvious. The interest burden on the public service is not increased by the increase of the principal of the bonded debt where the increase of the principal is fully compensated by the reduction of the interest rate. Indeed, the financial underwriters contrive by this expedient to somewhat reduce the annual interest burden, since the amount of the discount upon the principal which is figured in the process of stating the average interest yielded on the sum invested, is postponed to the maturity of the principal debt. This last mentioned circumstance, doubtless, explains the motive for financing at a low rate of interest, which necessitates

sale of securities at a discount, rather than by securities bearing a sufficiently high rate to command par. In the interval between date of sale and maturity, the latter method imposes the greater annual interest burden.

Let us suppose (as the proofs show in the present case) that the particular enterprise stands in such favor with investors as to be able to command money only upon paying an interest rate of eight per cent. It then has the alternative of issuing eight per cent. bonds and disposing of them at par, or of issuing five per cent. bonds and disposing of them at a discount that, in the course of twenty years or whatever is the term thereof, will be the equivalent to the investor, of an eight-per cent. investment at par. In either case, the maintenance of the public enterprise requires the payment of eight per cent. annual interest, or its equivalent. The public is not prejudicated by the sale of five per cent. bonds at a discount; but the latter expedient, in postponing a portion of each year's interest to the maturity of the bond, operates to temporarily reduce the interest burden. The inquiry, therefore, is not what is the nominal rate of interest on the outstanding bonds, but what is the rate of interest requisite to command capital for carrying on enterprises of this character in an interior town, in a new country, where rates of interest are confessedly high? The answer to this question, contained in the proofs, is that the rate is eight per cent.

To maintain the inviolability of appellant's property, under the rule of the Constitution, the court cannot justify a restriction of the rate of earnings to approximately the level of the bond rate, without adding to the physical valuations a sum equal to the discount necessarily suffered upon the principal of the bonds in order to market them at a low interest rate. Or, if this principle of valuation be denied, the court must disregard the nominal rate and ascertain by a fair analysis the necessary cost in interest rate, all elements considered, of

obtaining money for the enterprise. As an independent and separate problem, we are not prepared to criticise the method employed by the trial court of valuing the physical properties at their actual and essential cost, excluding the heavy discount on the principal of the bonds necessary to obtain money at low rates of interest. What we question is the justice of adopting that method, and at the same time restricting the rate of earnings to the reduced rate of interest upon the bonds, obtainable only by accepting heavy discounts from the principal of the loan. The appellant's earnings may be restricted either by a reduction of the discount from the valuations represented by the face of the bonds, or by a reduction of the rate of earnings to correspond, in a measure, with the reduced rate of interest obtained by inflating the principal of the bonds. Its earnings cannot, however, be justly reduced in both particulars; its candle should not be burned at both ends.

In addition to the interest rate requisite to command the use of money for such enterprises, there is an element of risk necessarily attending the prosecution of the undertaking, that must be compensated to the owner. This element is distinctly recognized in the opinion, already quoted in the *Consolidated Gas Company case*. The Railroad Commission of Wisconsin, recognized as one of the most efficient boards in this country dealing with the subject matter of public utility rates, in *State Journal Printing Co. v. Madison Gas & Electric Co.*, 4 Wis. R. C. R. pp. 644-645, said:

"But there are, in public utilities as well as in other industries, other than competitive risks. In the construction and operation of such plants many accidents may be met with and many mistakes may occur. While some of these might have been foreseen and prevented, others may be beyond human intelligence and grasp. Many examples of this might be mentioned. Such plants may also be injured by the diversion of the growth of the city in a different direction from that expected when the plants were built; by the failure of the

city to grow as rapidly as expected or as rapidly as the plant had made preparations for; by the failure of the city to grow at all, as well as by decreases in its population and industries; by actions of the local and other authorities by which unprofitable extensions may be required, the rates reduced, or other burdens imposed, as public utilities usually have to furnish adequate service whether it is paying or not. In the case of such losses, the owners or employers are the first to suffer, as their share of the proceeds is not fixed but has to take what is left after the other claims have been met. Wages, salaries, supplies, taxes, interest on the bonds or notes, etc., must be paid by the employers or the business will stop or go into receivership. If the earnings are only large enough to cover these outlays, the employer will have to go without his pay. There is no escape from this. In view of these and other facts, it is clear that public utilities are not entirely exempted from risks and that, therefore, there is a speculative feature about them for which their owners are entitled to something in the way of speculative gains."

In the same case (4 Wis. R. C. R., pp. 647-648) the Commission, in expressing its determination of what was a just and reasonable rate of return upon the value of properties employed in gas and electric utilities, in the State of Wisconsin, said:

"In view of the facts that have thus been presented in relation to this subject, it may be said that the witnesses for the respondent placed that part of the return on the investment which might properly be termed profits at rather high figures; and that under the circumstances in this case it is not unreasonable to limit the profits to from $1\frac{1}{2}$ to 2 per cent on a fair valuation of the gas plant and from 2 to $2\frac{1}{2}$ on a fair valuation of the electric plant. Such rates, in *addition to an allowance of 6 per cent in each case for interest*, would seem to be fair to the present owners as well as sufficient to secure both the business capacity and capital that are required in this particular case. It would not be unreasonable to limit the returns for both interest and profit to not less than from $7\frac{1}{2}$ to 8 per cent on a fair valuation of the gas plant, and to not less than 8 per cent on a fair valuation of the electric plant."

The proofs in the present record demonstrate that the actual cost of borrowing money for the same enterprise in Lincoln, Nebraska, is much greater than the assumed rate of six per cent. adopted in the *Madison case*, and if appellant is entitled to the same rate of return on account of the element of risk, alone, that was yielded in the *Madison case*, the total rate of earning and return upon invested capital, which the Lincoln company is entitled of right to have, would be something in excess of eight per cent.

As indicating the extent of the earnings to which a public utility corporation is entitled in communities like Lincoln, from the viewpoint of judges whose activities have been confined to a neighboring locality, we quote from the opinion of McPherson, J., in *Des Moines Water Co. v. Des Moines*, delivered in the United States Circuit Court for the Southern District of Iowa, September 16th, 1911, — Fed. —, as follows:

"Taking into account the expenses of approximately \$122,000.00 per year, the reduction proposed by the new ordinance would make the plant unremunerative to the extent that it is entitled to receive, considering the fair value of money in a state like Iowa. And considering the hazards and liabilities, some of them certain, and others contingent, and some of them destructive, *an eight per cent. return is moderate.*"

The Nebraska State Railway Commission, in determining the rate of earnings which the Lincoln Traction Company was entitled to receive on its properties employed in a street railway enterprise, in *City of Havelock v. Lincoln Traction Co.*, in an opinion delivered May 17th, 1911, (Report Nebraska State Railway Commission for 1911, p. —) said:

"No hard-and-fast rules can be established in respect to a fixed rate of income upon investments of this nature, but we have no hesitancy in saying that under ordinary conditions, where the good faith of the company and its fairness with

respect to its patrons appears, the maximum return to such investors (provided the rate charged is not an unusual one) should not exceed three per cent. *in excess of the customary and existing rate of interest* received by those whose investments are represented in fixed interest-bearing securities. In other words, the building of electric lines should be encouraged and the returns upon such investments should be sufficiently large to attract capital to such enterprises. If the rate of interest on fixed interest-bearing securities in any given locality is five per cent., a maximum return to the investors in electric railways *would not be unreasonable or excessive at eight per cent.*"

The decision above quoted, not yet published in the permanent reports of the Commission, affects a public utility enterprise carried on in the identical community served by appellant. The Lincoln Traction Company is mentioned in the pleadings and proofs as a competitor of appellant, offering service by electricity in competition with the gas service of appellant. The decision quoted indicates the appropriate rate of return upon such investments from the viewpoint of public administrators resident in the community served by appellant, who have made extended investigations and are familiar with local conditions and with the rate of returns necessary to command capital for the development and maintenance of such utilities as the interests of the community demand and require. Approximately one-third of appellant's bonds bear interest at the rate of six per cent. The residue bear the nominal rate of five per cent. So if the smaller enterprises of the appellant be placed, so far as earnings are concerned, on a level with the larger enterprise of the Traction Company operating in the same city and community, appellant will then be entitled to a rate of profit or return upon its properties employed in the gas service, of something in excess of eight per cent.

By the statutes of Nebraska, any rate of interest agreed upon, up to ten per cent. per annum "upon any loan or forbearance of money, goods or things in action" is lawful, and

the rate of ten per cent. may be collected in advance if so agreed. In the absence of agreement, interest upon the loan or forbearance of money, goods or things in action, accumulates at the rate of seven per cent. (Comp. Stats. Neb. ch. 44.)

The prevailing rates of interest in the community where the enterprise is prosecuted cannot be wholly ignored. While this court has not committed itself to the doctrine that earnings may not be reduced, in any case, below the legal rate, there is reason and authority for the contention that the fair return required by the Constitution must not be less than the legal rate of interest. (*Brymer v. Butler Water Co.*, 179 Pa. 251; *Pa. R. Co. v. Philadelphia County*, 220 Pa. 115; *Chicago Union Traction Co. v. Board of Equalization*, 114 Fed. 561; *Louisville & N. R. Co. v. Brown*, 123 Fed. 951; *Central R. Co. v. R. Com.*, 161 Fed. 925; *Milwaukee Electric R. & L. Co. v. Milwaukee*, 87 Fed. 585; *Southern P. Co. v. Railroad Commissioners*, 78 Fed. 261; *People v. Tax Commissioner*, 12 N. Y. Sup. 392; *Spring Valley Water Works v. San Francisco*, 124 Fed. 598.)

It remains to show that Mr. Bemis, the statistician relied on by the City, conceded appellant's right to earnings upon its property at the rate of seven per cent. and offered no suggestion that a restriction of earnings to as low a rate as six per cent. could be justified. In figuring out a theoretical profit that should be yielded to appellant, on the assumption that its plant showed a structural value of \$3.00 for each thousand feet of gas sold, Mr. Bemis said: "And, of course, seven per cent of \$3.00 is twenty-one cents." On the assumption that appellant's plant has a structural value of \$3.00 for each thousand feet of gas sold, Mr. Bemis conceded that appellant should have a net return of seven per cent. upon that valuation. Following this statement, the City Attorney asked (p. 73), "And correspondingly lower at the rates of six per cent. or five per cent?" to which Professor Bemis answered: "Yes, sir. I

used seven per cent. on the theory that rates are a little higher here than in Iowa or in the East, where I have always used six per cent."

On cross-examination (p. 397) Professor Bemis spoke on the same subject as follows:

Q. Now, you think a reasonable rate of interest on the company's invested capital here would probably be seven per cent.? A. I have thought so. Six per cent. I reckoned in Iowa in the Cedar Rapids case; it struck me this morning that seven per cent. would be proper here, although six per cent. at the *start*, with the idea that there would be *growth*, might be right.

The same witness in another aspect differentiated between the higher interest rates prevailing in Nebraska and the lower rate in New York. In exploiting his sinking fund theory for the computation of depreciation (printed record, p. 364) he said:

"Now the amount necessary to put into the sinking fund that will redeem the principal in 75 years, if you take 5 per cent as your sinking fund charge, *which I believe is proper in this part of the United States where interest is a little higher*—New York I should take 4 per cent sinking fund—but a 5 per cent sinking fund charge would only require per year 13-100 of 1 per cent."

The City's statistician, therefore, assumed that, because of higher local rates of interest, a sinking fund could be safely trusted with a savings bank or trust company and compounded and accumulated at the rate of five per cent. in Lincoln, Nebraska, as against the rate of four per cent. obtainable in New York. He figured against the appellant a rate that was 25 per cent. higher than he could justify in New York. This same rate of differentiation would require that the rate of profit on invested capital figured from the standpoint of interest rate alone, must be conceded to be $7\frac{1}{2}$ per cent. in Lincoln as against 6 per cent. in New York.

"Of course, there is always a point," as was said by Mr. Justice PECKHAM in the *Consolidated Gas case*, "below which a rate could not be reduced and at the same time permit the proper return on the value of the property." That point in the case under review cannot justly be held to be less than eight per cent. In consideration of the risk in the business in the locality where it is conducted, the rate expected and usually realized there upon investments of a similar nature, the instability of appellant's earnings, and interest rates necessary there to command capital for similar enterprises, enumerated by Mr. Justice PECKHAM in the case cited, and reflected by the evidence under review, it cannot justly be held that a rate of earning at any point below eight per cent. upon the value of the capital employed in the service, is an adequate return to appellant. On this issue the record presents, not an argument merely, but a demonstration that is final and conclusive.

The conclusion to be drawn from the admitted facts and circumstances as to what is a fair rate of return upon appellant's capital employed in the public service is, of course, a question of law, upon which the opinion of the trial judge is not conclusive. As such it is open to review by this court. It inheres in the asserted constitutional right to a just and fair return. But if, in any aspect, the determination of the rate of return may be held to involve the mere finding of an essential fact, the issue, is, even then, open to review in this court. In *Knoxville v. Knoxville Water Co.*, 212 U. S. 8, Mr. Justice MOODY said:

"The power is best safeguarded against abuse by preserving to this court complete freedom in dealing with the facts of each case. Nothing less than this is demanded by the respect due from the judicial to the legislative authority. It must not be understood that the findings of a master, confirmed by the trial court, are without weight, or that they will not, as a practical question, sometimes be regarded as con-

clusive. All that is intended to be said is, that in cases of this character this court will not fetter its discretion or judgment by any artificial rules as to the weight of the master's findings, however useful and well settled these rules may be in ordinary litigation. We approach the discussion of the facts in this spirit."

We have heretofore shown that in *Wilcox v. Consolidated Gas Co.*, 212 U. S. 48-50, the issue to what was a just rate of return upon invested capital was considered and determined by this court. This court has established the practice of determining that issue independently upon appeal. The inadmissible restriction of appellant's earnings by the lower court to a point as low or lower than six per cent. did not of itself, in the opinion of the lower court, justify the reduction of rates made by the ordinance assailed. It was necessary, further, to arrest the imposition of the occupation tax of $2\frac{1}{2}$ per cent. upon appellant's gross receipts. Even so, the lower court found that upon the experience of the company for one year after the ordinance took effect, appellant's earnings under the dollar rate would have amounted to but 5.2 per cent. So, on the face of the opinion of the lower court (printed record, pp. 41-45), the ordinance operated to reduce appellant's earnings to a point as low or lower than six per cent. That point we have shown is materially lower than the just and reasonable return guaranteed by the Constitution, in the situation and circumstances which surround appellant. If appellant is entitled, as we have endeavored to show it is, to a return of not less than eight per cent., or to any rate higher than six per cent., then on the face of the opinion and findings of the lower court, the ordinance must be adjudged void.

V.

That appellant's stocks and bonds are in excess of the cost of the plant, is shown not to have added to the cost of the service, nor increased the cost of operation and maintenance.

The appellant, on acquiring its properties, adopted the quite usual method of financing its enterprise by the sale of mortgage bonds. Without stopping to justify or condemn the ethics of this method, it was in vogue and was common practice when employed by appellant. As already explained in the preceding point, its bonds were sold at a discount of from twenty to twenty-five per cent. in order that they might be marketed at the low interest rate of five per cent. By this method the total bond issue would exceed, by 25 per cent. or 33 1-3 per cent., the money actually derived therefrom, which represented the cost of marketing, at the lower rate, a security that could be floated only on an eight per cent. basis. The reduced annual interest compensated for the discount of the principal, so that there was no added burden upon the public service. This plan was executed in May, 1900.

H. S. Wiggins, a public accountant, who had examined appellant's books and records in behalf of the City, testified (p. 351) that no dividend had been paid on the Company's stock since May, 1900, and (p. 352) that all its subsequent earnings had been employed in the betterment of its plant. The effect was simply to finance the company by the sale of bonds, instead of by the sale of its stock. To anticipate future demands for capital, as its service expanded, the authorized bond issue (kept in control of the directors) was \$1,500,000.00.

The Statutes of Nebraska (Comp. Stats. Neb. Ch. 16, Sec. 128) limits corporate indebtedness to "two-thirds of the capital stock." To meet the requirements of the statute it was necessary to have capital stock of \$2,250,000, in order to justify the desired bond issue; and stock for that sum was issued, as evidenced by the resolutions read in evidence (printed record, p. 144). The inflation of this sum by a quarter of a million, in the statement of the trial court, is, of course, a mere inadvertence, and is not in any event material to the issue.

We have referred to the proof that there were no dividends on the stock to burden the public service. Let us now see if, on the values found by the lower court, the interest on the whole bond issue, which represents all of the Company's withdrawals by way of earnings on invested capital, was an unjust burden on the public service.

Appellant, through an independent department and by separate appliances, maintains an electric service. The value of its electric plant is just one-half that of its gas plant. Its total issue of outstanding bonds is correctly stated in the opinion of the lower court to be \$1,129,000. Let us now reduce the valuation of appellant's electric plant to the same low level as that applied by the Circuit Court to the gas plant. The court found the value of the gas plant to be \$566,073.59. Let one-half of that, namely, \$283,036.79, represent the value of the electric plant. The sum of the two, on this low basis of valuation, will then show the total actual physical values represented by the bonds to be \$849,110.38. There is in this no inflation; it represents the net proceeds, so to speak, of the sale of all the bonds. Now, in actual experience, the sale of the bonds only realized 80 per cent. of their face value; and to produce actual money representing the physical values found by the Circuit Court would require the sale of bonds of the par value of \$1,061,387.97. The net proceeds of all the outstanding bonds, \$1,129,000, at 80 per cent. would be \$903,200. The physical values found account for the proceeds of all the bonds outstanding but \$54,089.62. This discrepancy will be more than accounted for by items of property overlooked by the trial judge, and hereafter discussed.

Assuming that appellant is entitled to a return of eight per cent on the value of its invested capital, found by the Circuit Court to be employed in its gas service, and also that employed in its electric service on the same basis of valuation, namely, \$849,110.38, this rate of return would burden the

service with \$67,928.83 per year. But the interest on the entire outstanding bond issue, \$333,000 of which bears six per cent and \$796,000, five per cent, is only \$59,780. The interest burden of the bonds, which is the limit of withdrawals on account of capital earnings, has been less, by \$6,148, than eight per cent. of the actual values on the basis of the trial court's opinion.*

This explanation of the financing of the appellant is an appropriate supplement to the argument presented in the preceding point, since the opinion of the Circuit Court embodies an expression of ethical indignation that "the stock and bonds are *each* grossly in excess of the value of complainant's plant, and grossly in excess of the cost of construction." The fact that the bond capitalization covered the cost of the separate electric equipment was overlooked by the Circuit Court. The proceeds of the bonds were considerably less than the *cost of construction* actually found, when two-thirds thereof, only, are apportioned to the gas department. We offer no justification for over capitalization or fictitious capitalization of any industry, public or private; nor do we complain of judicial condemnation, in a general sense, of the practice of overcapitalization. But the record shows indisputably that the bond capitalization of appellant, treated separately, is not excessive in fact, either of the actual cost, or present value; and that neither the stocks nor bonds have ever been employed to burden the service or increase the cost to the consumers.

VI.

In practical operation, the gas service furnished by appellant is necessarily burdened with an annual depreciation charge, exceeding \$20,000. Appellant is not compensated for this

*Note: We have here combined the two plants because the stocks and bonds cover all the Company's property. The ratio of values is fair, on the proofs, to the gas department, and was employed in all the proofs and calculations relating to the small items of office equipment, and the like, used in both branches of the service.

necessary cost of the service under the Dollar gas rate; and the consequent burden upon appellant's general revenues, from this cause, was not accounted for in the opinion and decree of the Circuit Court.

Employment of the sinking fund method of computing depreciation, whereby the public appropriates the earnings accumulated at compound interest on each item of annual depreciation during the life term of the equipment, is neither lawful nor compatible with the system of valuing the whole property for revenue purposes at its depreciated value.

The determination of the rate of earnings and a fair allowance for depreciation against appellant's revenues, are of equal importance. Their correct determination must largely control the decision. At the outset, we freely concede every right of the public that may be justly asserted, consistently with the constitutional rule of the inviolability of private property. This includes the right of the public to appropriate, by reduction of rates, everything in excess of the actual cost, plus a fair and just return on the value of the properties employed in the service. On the other hand, the public, to whom the rights just enumerated are conceded, must at the same time yield to appellant revenues sufficient to cover the cost of the service, including the maintenance of the properties employed, so that its properties and invested capital may not suffer impairment by use or employment in the public service. The public must yield to appellant sufficient revenues to cover such deterioration and depreciation of properties as is shown, by practical experience, to be incidental to the use and employment of such properties in the service. In addition, the public must concede sufficient revenues to yield a fair and just return on the value of the properties employed in the service. We present the issue upon these high ethical standards.

The City's proofs concede that the whole life of appellant's buildings and gas holders does not exceed thirty years,

and that the average life of its meters, services, manufacturing plant and other properties, aside from cast iron gas mains, does not exceed twenty years. In respect to the cast iron mains, the City's expert considered a seventy-five year life as reasonable in ordinary cases, but confessed there was a strong argument, in the case of the City of Lincoln, in favor of the conclusion that this class of property would not outlast a term of fifty years. (Witness Bemis, printed record, pp. 357-358.) Adopting the valuations found by the lower court, and computing average annual depreciation on the least favorable basis to appellant, suggested by the City's own expert, the appellant's properties will be found to suffer an average annual depreciation beyond the items of ordinary repairs, of upwards of \$20,000. This sum is, therefore, a necessary element of the cost of the service. Accurate computations are hereafter presented.

The proposition that depreciation from use, of the properties employed in the service, is an essential part of the cost of the service, is self-evident from its mere statement. Judicial sanction and approval of that doctrine has been so general that it cannot be regarded as open. In the will considered and instructive opinion in *Knoxville v. Knoxville Water Co.*, (212 U. S. 13,14) Mr. Justice MOODY put all contention on the subject at rest by employment of the following vigorous language:

"Before coming to the question of profit at all, the company is entitled to earn a sufficient sum annually to provide not only for current repairs, but for making good the depreciation and replacing of the parts of the property when they come to the end of their life. The Company is not bound to see its property gradually waste, without making provision out of earnings for its replacement. It is entitled to see that from earnings *the value of the property invested is kept unimpaired*, so that, at the end of any given term of years, *the original investment remains as it was at the beginning*. It is not only the *right* of the Company to make such provision, but it is its

duty to its bond and stock holders, and, in the case of a public service corporation, at least, its plain duty to the public. If a different course were pursued, the only method for providing for replacement of property which has ceased to be useful would be the investment of new capital and the issue of new bonds or stocks. This course would lead to a constantly increasing variance between present value and bond and stock capitalization—a tendency which would inevitably lead to disaster, either to the stockholders or to the public, or both.”

It is thus the settled law, in this forum, that depreciation from use is an item of the cost of the service, and that, before reaching the item of profit, the company is not only entitled *as of right*, but is in duty bound to reinvest in its plant a sum sufficient to counterbalance loss in value occasioned by depreciation. The value of the property representing the invested capital should be maintained without impairment from use.

It necessarily results from the doctrine thus established, that the properties are to be valued for revenue purposes at their present or depreciated value; for if a sum sufficient to counterbalance depreciation is being constantly applied to the replacement and upkeep of the plant, its present value would never be permitted to fall below a sum which fairly represents the original investment. And so the rule of valuation for revenue purposes, consistent with the doctrine that annual depreciation is an element of cost, was announced in the same opinion, by Mr. Justice MOODY, (*Knoxville v. Knoxville Water Co.*, 212 U. S. 9, 10) as follows:

“This valuation was determined by the master by ascertaining what it would cost, at the date of the ordinance, to reproduce the existing plant as a new plant. The cost of reproduction is one way of ascertaining the present value of a plant like that of a water company, but that test would lead to obviously incorrect results if the cost of reproduction is not diminished by the depreciation which has come from age and use * * *. It is not easy to fix at any given time the amount of depreciation of a plant whose component parts are of different

ages, with different expectations of life. But it is clear that some substantial allowance for depreciation ought to have been made in this case."

In *Wilcox v. Consolidated Gas Co.*, 212 U. S. 52, Mr. Justice PECKHAM, in the opinion, said:

"And we concur with the court below in holding that the value of the property is to be determined *as of the time when inquiry is made regarding the rates*. If the property which legally enters into the consideration of the question of rates has increased in value since it was acquired, the company is entitled to the benefit of such increase. This, at any rate, is the general rule."

The opinion of the trial court states that "the plant has been kept in a good state of preservation, needed repairs, etc., having been fully made." In valuing the plant for revenue purposes, the trial court, following the rule announced in *Knoxville v. Knoxville Water Co.*, made "a substantial allowance for depreciation" from replacement values of the manufacturing and distributing plant. Touching depreciation upon this portion of the company's properties, the lower court said: "While the evidence as to depreciation is somewhat vague and indefinite, I think upon the items aggregating said \$496,681.72 there should be deducted for depreciation, 10 per cent., amounting to the sum of \$49,668.17." The item referred to is not the total depreciation, for among other items of property, not included in the manufacturing and distributing machinery, the court ascertained the present values by making an allowance much in excess of ten per cent. from the replacement cost. This is particularly true in the item "*present value* of buildings \$24,643" (printed record, p. 42). The company's detailed statement of the reproduction cost of the buildings (printed record, pp. 236-238) was \$37,286. On this item the court assessed the present value at but two-thirds of appellants estimated replacement value.

While the theory of estimating depreciation as an item of the cost of operation is not exploited nor explained in the opinion of the trial court, the record demonstrates that the court adopted the *sinking-fund* method as exploited by the City's statistician, Professor Bemis. The entire expression of the trial court upon this subject (printed record, p. 43), is as follows:

"While the plant has been kept in a good state of preservation, needed *repairs*, etc., having been fully made and chiefly charged to expense account, something should be allowed as a fund to be set apart for what is denominated a 'depreciation fund.' This I find to be \$8,000 per year."

In so far as mere items of "needed repairs" are involved, it is true that charges were properly made into the repair account by the company. In that behalf the expression of the trial court reflects credit upon the company. However, in actual practice, the company did not charge replacements nor other items of mere depreciation by age or use into the repair accounts. Items of the latter class, which are intended to be compensated by the separate item of depreciation, did not enter into the cost of manufacture and distribution, as exhibited by the company's monthly or annual reports in evidence. References sustaining this statement, will be hereafter made.

Witness Malone, called by the Company, detailed (printed record, pp. 186, 187, 188) the incidents establishing unavoidable depreciation of the properties constituting a gas plant, from year to year, beyond the items of ordinary repairs, and stated his conclusion as to the requisite sum applicable to that element of cost, as follows:

Q. Taking into consideration all the appliances used, the necessities for changes from all causes, the actual depreciation by wearing out from use, what would you say would be the reasonable per cent. to be allowed for the item of depreciation, alone, over and above the items for repairs and maintenance?

A. I have always contended for 5%; I have heard lots of

engineers say it was too small; but I think that would cover it in an ordinary gas plant. I have seen \$80,000 worth torn out and never used, to make way for other stuff, in Chicago. That wouldn't occur in every plant.

Mr. Frank Frueauff (pp. 217-218) testified:

Q. In the actual practice in the business of the company at Lincoln, is the item of depreciation charged into the operating cost? A. No sir.

Q. How would you estimate what would be a reasonable sum for the item of depreciation at the Lincoln plant per year? A. My honest belief is that there should be something in excess of 6% on the physical investment, but in making up our estimate here we put that in at 5%; in a growing town like Lincoln I believe you must figure that our plant from inadequacy has got to be practically rebuilt and enlarged in not to exceed 15 years from the time it was put in; a good part of the mains will not last to exceed 15 years.

Again (page 213) Mr. Frueauff said "The depreciation is figured on the basis of 5% on the replacement value of the physical property, not including real estate."

Professor Bemis was the only witness who testified on behalf of the City, touching the item of depreciation. The following excerpts from his testimony exhibit the classifications employed by him to ascertain the expectancy of life of the different portions of the Lincoln plant:

"I consider 75 years as a reasonable life for mains, though there can be considerable said in favor of 50 years, but that would certainly be the minimum, and 75 years, in my opinion, would be a reasonable life unless there are extreme local conditions." (Printed record, p. 357.)

"Buildings and holders I class together. They have a life, aside from inadequacy, for over 50 years; but on account of inadequacy owing to the development of the business requiring larger holders and different and larger buildings, I have usually taken 40 years, but I think in a growing town, *in a city no large than this*, the displacement from inadequacy is more rapid than in a larger and older city, and I consider 30 years would be more reasonable here." (Printed record, p. 358.)

"The rest of the plant, I grouped together, the meters and the services, and all of the manufacturing plant, the works and other— * * * of course some of it has a longer life than others, but 20 years I consider a fair allowance." (Printed record, p. 358.)

The quotations given show that the City's one witness on this point is in exact accord with the witnesses of appellant upon a five per cent. depreciation, as applied to the major portion of appellant's properties. The only divergence is (1) upon the classification including mains, which Bemis estimates at 75 years, but which he concedes may properly be estimated at 50 years; and (2) upon the item of buildings and holders, which he figures on the basis of a 30 year life, or at three and one-third per cent. annual depreciation, instead of five per cent.

The appellant claims that the just and full allowance to meet this factor of depreciation should be appropriated by it each year, as it accrues, in order to constantly sustain the values of its properties at the level of the original investment. As against this claim of appellant, the City insists upon the sinking fund theory of computing depreciation, which withholds from appellant the items accruing on account of depreciation, in order that the public may appropriate the earnings thereon, accumulated at compound interest, during the life term of the equipment. The lower court adopted the City's theory. The exploitation of this *sinking fund theory* by Professor Bemis is found in the printed record (pp. 363-365) as follows:

"A. The first matter is to determine the probable life, the average life, of each particular class of property. Suppose that the mains were taken at 75 years, then 1-75 of this value of the mains might be said to disappear each year, yet *the mains are nearly as useful right through until near the end of the 75 years, when they will have to be discarded for inadequacy or some break. So that the expenses of meeting this depreciation, that will come in the form of the renewing of the mains, is not felt until the end of the time. We assume ordinary repairs to be made as is usual in all gas companies from year*

to year. I am now talking about the ultimate renewals due to the depreciation and which cannot be taken care of by ordinary repairs. As I said, the expense of such renewal comes at the end of the life. The problem, therefore, is as I look at it, how to secure the money for renewing the main at the end, or the time it has come to be renewed, say at the end of 75 years, or 50 years, or whatever be taken as its life. And I cannot conceive a fairer method than the sinking fund method, namely: what sum yearly must be set aside so as to equal the principal or value of the main at an agreed rate of interest in the sinking fund, say 4 per cent or 5 per cent. at the end of the life of the main. Take an illustration of this kind; suppose some piece of property has a 40 year life. Many buildings have that life. Now you may say that 1-40 of the value of the building disappears every year. If, however, you ask the gas consumer to pay 1-40 of the value of that building back to the company every year, the company has an opportunity to invest that in its plant at more than sinking fund rates; or, at the worst, it can put it in the savings bank, and loan it out at sinking fund rates, and even at four per cent. interest, its full value paid in 40 year annual installments would make, at the end of the time, $2\frac{1}{2}$ times the principal. That is, if you had a building worth \$100,000 and you assumed that it has a 40 year life, and therefore loses \$2,500 a year, and the gas consumer pays \$2,500 a year to the company the consumer will pay apparently \$100,000 at the end of 40 years but the company will have \$250,000 to show for it, if it merely gets 4 per cent. out of that investment in its own plant, or in a sinking fund—it would undoubtedly put it into the plant and make more than 4 per cent. Why should not the consumer have the benefit of that extra \$150,000. It seems to me that if the company gets \$100,000 at the time it needs to use it, when the buildings need renewal at the end of the 40 years, it has been recouped for all its loss, and \$1,000 a year, instead of \$2,500 a year, in a 4 per cent. sinking fund will make \$100,000 at the end of 40 years; the difference being that the consumer keeps the profits of the investment instead of the company. Therefore, it seems to me that *the sinking fund method is the proper method for financing depreciation*. The depreciation is assumed to be 1-40 but the amount necessary to finance it in the illustration I am speaking of would only be 1-100 a year.

Q. Now, applying that method to the plant of the Lincoln Gas & Electric Light Company, what would you say would

be a reasonable allowance per annum for depreciation, assuming the valuation given by the expert, Mr. Malone, to be the correct valuation? A. That valuation, as I understand it, is the one I have before me, which totals \$550,272.72, and adding a working capital, and certain overhead charges, such as engineering and interest, the cost of obtaining money, in other words, I understand you are asking in regard to that figure?

Q. Yes sir. A. The first thing necessary is to divide that into classes that have a different average life, which I have done, I have excluded the real estate, the land \$7,200, that leaves \$543,072.72. Then the mains in dirt streets and in paved streets are given by the company at \$220,605. The buildings are given as \$37,286 and the holders with the tanks are given at \$33,675, making \$70,961 for the buildings and holders. The balance of the investment I grouped together in a class by itself, meaning the manufacturing plant and the meters and services and everything not included in mains, buildings and holders, and that is \$251,506.72. Now I applied 75 years' life to the mains, and 30 years to the buildings and holders and 20 years' life to the rest. Now the amount necessary to put into the sinking fund that will redeem the principal in 75 years, if you take 5 per cent. as your sinking fund charge, which I believe is proper in this part of the United States where interest is a little higher—New York I should take 4 per cent. sinking fund—but a 5 per cent. sinking fund charge would only require per year 13-100 of 1 per cent., it seems very small and yet the accountants' tables agree there is no doubt of the accuracy, I think, of the result. That means per year on \$220,605, on mains only \$287.79, assuming the life to be, as I say, 75 years. Now it is very much higher when you get to the rest of the plant with its shorter life, the part of the plant having 30 years' life would require 1 51-100 per cent. per year the result for the \$70,961, value claimed by the company for buildings and holders is \$1,071.51 a year, on a 30 year life. The rest of the property \$251,507, in value on a 20 year life would require 3 2-100 per cent. a year or \$7,595.51. The total required for the three classes of property then becomes \$8,953.81, which on the basis of 179,366,000 feet of sales in 1907 is about 5 cents per thousand feet, it does not vary 1-100 of a cent from that so I will call it exactly 5 cents per thousand feet. If, however, the mains be taken at 50 year life instead of 75 years then the amount to be set aside yearly will be 48-100 of one per cent. instead of 13-100 which

will add \$500.50 a year or 28 cents a thousand feet of sales last year to this amount making 5 and 28-100 cents. That is on the company's showing or claim of values."

Later (printed record, p. 368), Mr. Bemis acknowledged an error in estimating the entire item of mains at the longer life of 50 or 75 years. Speaking to this point, he said: "When I was speaking of the life of 75 years on mains, I assumed mains of the ordinary size. I think this two inch has practically lost four-fifths of its value already, on account of inadequacy; that is, with reference to the ordinary sizes of four inch, six inch, eight inch, and upwards, that is, *what the longer life is predicated on.*" In fact, the two inch mains, which constitute the greater portion of the whole main mileage, are of wrought iron and do not withstand the chemical action of the soil as does cast iron. They are referable to the class of property which Professor Bemis concedes to have a 20 year life, only, in which he expressly places services and all wrought iron pipe.

Mr. Honeywell, questioned by the City Attorney as to what was included in the Company's construction account (printed record, pp. 121-122) testified:

Q. Well, this \$603,278 total that you have here includes then, as a matter of fact, all that has been paid out in constructing your gas plant, and also where you had to lay new mains on account of the old ones being worn out, and where your plant was rebuilt and the old one abandoned, it includes all of these items? A. It does not include replacing mains.

Q. What kind of an account would you have for that? A. Well you would call it main maintenance. For instance, if you took up a four-inch main that was worth 50 cents a foot to you and laid down an eight-inch that was worth \$1.00 a foot to you, we would charge construction with the difference, 50 cents only. We would not charge it up with \$1.00 again. This is only an arbitrary illustration.

Again, the same witness, testifying to the same subject, (printed record, p. 137) said:

Q. Do you remember of being asked whether the cost of a replaced main was charged up in your tabulation to new construction? A. Yes sir.

Q. Was it? A. The difference between the main taken up and the new main was charged to new construction.

Q. The difference only? A. The difference only.

Q. Did that leave still employed the capital contributed for the displaced main? A. Yes sir.

The same witness (printed record, p. 123) further testified in answer to questions propounded by the City Attorney, as follows:

Q. Any difference in the price, or in their wearing power? A. Yes sir.

Q. I mean between a wrought and a cast iron? A. Yes sir, there is a difference in price.

Q. Which is the more expensive? A. Cast iron pipes are more expensive.

Q. And supposed to last longer. A. Yes sir.

Q. What is the idea of putting in a wrought iron pipe?
A. It is easier to lay, you can put it in cheaper, and in small sizes it does just as well.

Q. Are all your two-inch mains wrought iron pipe?
A. Yes sir.

It was proved indisputably, therefore, and without contradiction, (1) that the two inch mains were of wrought iron and of shorter life than the cast iron, the material upon which Professor Bemis justified the separate classification of mains as long-lived equipment; and (2) that the company's replacements were not charged to repairs and that upon replacing a smaller main for a larger one, there was charged into the plant account of the company only a sum which represented the difference between the cost of construction of the smaller and larger main. This leaves the original capital still employed, and avoids increase of the capital beyond the present value of the company's equipment, in accordance with the philosophy expressed by Mr. Justice MOODY, heretofore quoted from *the Knoxville water case*.

Let us now inquire if the sinking fund theory of depreciation may, upon the record proofs adverted to, be lawfully applied to determine the net earnings applicable to returns upon the capital of appellant, under the dollar gas rate in question. In making the test, we first give computations of the actual annual depreciation, according to the classifications for expectancy of the life of equipment made by Professor Bemis, and the findings of values embodied in the opinion of the lower court.

The lower court found the total replacement value of all mains in unpaved streets to be \$90,578, and in paved streets, \$130,027, aggregating \$220,605. This is the sum estimated by the engineers who testified for appellant. By reference to the schedule (printed record, pp. 239-240) it is shown that of this aggregate \$77,610 is for 2 inch wrought iron mains, and \$142,995 for cast iron mains of a larger size than 2 inches. To find the present actual value the court reduced this item 10% to cover depreciation, which makes the valuation of this long-lived class, according to Bemis' classification, only \$128,695.50.

On the classification, according to the 30 year life, the lower court found the *present* value of buildings to be \$24,643. This item was not, therefore, included in those which he subjected to the 10% reduction. The items of holders are included in the court's findings of replacement values of "coal gas apparatus" and "water gas apparatus." By reference to the engineer's schedules (printed record, p. 237) we ascertain that the value of the 205,000 foot holder, including foundation, etc., is \$24,300, and the value of the 50,000 foot holder is \$9,375. The total of the replacement valuation of the holders is \$33,675, which by the opinion of the lower court was subjected to a depreciation of 10%, leaving the net value of the holders, as found, \$30,307.50. Adding this to the present value of the buildings gives \$54,950.50, as the sum which the

lower court found as the value of all property which Bemis classified as having a life of 30 years.

All the residue, except real estate found to be of the value of \$4,000, is classified by Bemis as having an average life of 20 years. A computation of the annual depreciation of appellant's properties, according to the classification of life presented by the city, and upon the valuation actually found by the Circuit Court, is exhibited by the following table:

Deprecation Based on Bemis Classification and Values Stated in the Opinion.

Item	Life	Value as Found	Annual Depreciation
Cast Iron Mains...	75 yr. 1 1-3%	\$128,695.50	\$ 1,716.00
Buildings and Holders	30 yr. 3 1-3%	54,950.50	1,832.00
Residue, less Real Estate	20 yr. 5%	378,427.59	18,921.37
Real Estate.....		4,000.00	
Total		\$566,073.59	\$22,469.37
For 50 yr. life cast mains, add.....			857.90
Total			\$23,327.27

It was conceded that a relatively low proportion of the appellant's entire capital was invested in cast mains, buildings and holders. Doubtless, as suggested in the testimony of Professor Bemis, the storage capacity must be greatly increased, and the permanent buildings must be enlarged, and this in turn, while increasing the average life of the plant, will burden the service with necessary earnings on increased capital. Under the conditions existing appellant's claim to a 5% depreciation allowance seems to be well established and should have been approved by the court. Figuring 5% on the total valuation *found by the court*, less \$4,000 for real estate, gives \$28,-

103.79, as the annual depreciation which appellant, on that valuation, asserts should be charged against the revenues, as a part of the cost of the service, before apportioning any sum to earnings on invested capital. If this basis be just, then upon the 1907 experience, there must, in order to ascertain the sum that is applicable to earnings on capital, be deducted from the revenues of \$73,851.83, for depreciation \$28,103.79, for reduction in rate, per opinion of trial court, \$35,873.26, and for occupation tax (contingent upon its validity) \$4,484.15. This leaves applicable to earnings on property valued by the court at \$566,073.59, the sum of only \$5,389.95, less than one per cent., and if the basis of computation is correct, proves the rate to operate as a confiscation of appellant's property.

If depreciation be charged according to the classification presented by the City, adopting a 50 year life of cast iron mains, which according to Bemis may be permitted, at \$23,-327.27, there will then be left applicable to earnings on capital only the sum of \$10,166.47, which is 1.8% of the value found by the court; and if the extreme age of cast iron pipe of 75 years be adopted, and \$22,469.37 be charged to depreciation as an item of the cost of service, there will be left for earnings on capital the sum of \$11,024.37, being 1.9% on the value found by the lower court.

If the decree, in so far as it enjoins the enforcement of the occupation tax of \$4,484.20 is a valid exercise of the powers of the court, the gross amount of that tax will be considerably less than one per cent. of the sum found to be the value of appellant's properties employed in the gas service; and, even so, the revenues applicable to earnings on capital will, under the most extreme claim of the City, be considerably less than 3%. On the facts found, therefore, the maintenance of the *sinking fund theory*, by which the element of the cost of service, due to depreciation of the value of the plant from age and use, is reduced to a small fraction of its admitted actual

sum, is necessary to relieve the rate from the plain condemnation of the Constitution—even if the occupation tax is invalid and a return of 5.2% profit is adequate.

It is the settled law, expressed repeatedly by judgments of this court, that the property employed in the service, representing invested capital, must, for the purpose of testing the adequacy of rates, be appraised at its present value, as depreciated by age and use. As against the public, the inviolability of the investor's property, within the rule of the Constitution, is limited to its actual present value, as depreciated by age and use. That means, in the language of this court previously quoted, "some substantial allowance for depreciation" must be made from the cost "to reproduce the existing plant as a new plant." In other words, depreciation, unless compensated or counterbalanced each year by an equivalent sum, taken from earnings, as a part of the actual cost of the service, and put back into the plant by way of replacements and betterments, operates, annually, to reduce the invested capital and to reduce the revenues which the Constitution protects. This reduction of the capital, year by year, from use of equipment in the public service, is a primary and inevitable fact which the investor cannot escape. The *reduction* in capital from this conceded fact must, year by year, be compensated or made good by an equivalent *addition* taken from the earnings. To say the investor ought to contribute a sum sufficient to counterbalance depreciation, is to assert that he is obliged to suffer loss of so much of the principal of his investment each year, and ultimately, of his whole investment; and that during the process of thus appropriating the whole investment for the service of the public, the investor shall suffer a corresponding and steady diminution of earnings, until the public contrives to appropriate all he has. To say that new capital may be employed upon a basis of just and fair earnings to compensate for depreciation of the plant by use, is to assert that the public service may be

burdened with just earnings on capital greatly in excess of the value of the property employed to give the service. The opinion on this issue in the *Knoxville water case* is vigorous and persuasive, and its reasoning and philosophy are unassailable and unanswerable.

Though not applicable to the facts of the present case, let us suppose that no part of the equivalent of any year's depreciation has been compensated to the capital by replacements or betterments, and that a corresponding sum has been withdrawn and appropriated by the investor in addition to just capital earnings. The effect of this neglect and improvident withdrawal is to reduce, by so much, the capital invested, and to reduce ratably the just earnings which the investor may, of right, claim during the ensuing year. Having withdrawn his own capital he is not thereafter entitled to earnings on the part withdrawn. In a contest between him and the public, the fact of such withdrawal is ascertained by an appraisal of present values; and while neglect of the plant is not just to the public, the public is, theoretically, at least, compensated by reduction of the investor's earnings. In any event, title and ownership of the depreciation fund is in the owner of the utility, because it represents an item of the *cost* of giving the public service. The title to the fund, or the right to derive compound interest from its investment in a sinking fund, does not pass from the owner of the utility to the public because of the circumstance that the *owner* of it made an unwise or improvident use of the fund. Whether reinvested in the plant, or wholly withdrawn, the fund belongs to the owner of the utility because it represents a part of his expenditure to give the service. In the case supposed he reimburses himself by reducing his invested capital. By applying the same fund to replacements and betterments, he maintains his capital unimpaired and his right to just earnings thereon. It is preposter-

ous and absurd to assert that the public, enjoying the service, may withhold payment to the utility owner, of an item of cost and expense, necessarily incident to giving the service, while it cumulates profits at compound interest, on a fractional part of it only, for 25 years, or 30 years, or 50 years, or 75 years. No such system of discharging pecuniary obligations is known to law, reason or morals. If the fund is a part of the cost of service, it necessarily belongs to the owner of the utility and not to the public, and the owner and not the public is entitled to the profit upon it.

Professor Bemis terms his *sinking fund theory* a "method of financing depreciation." That is, theoretically and constructively, he takes an uncompensated item of *expense*, owing from the public, as a part of the cost of the service furnished by a utility company, that has been paid out by the company, and high finances a debt, deficit, or minus quantity, by paper tabulations, so that, as applied to an equipment of the life of 75 years, the delinquent public may discharge a debt of 1 1-3 cents, after the lapse of the term, for 13-100 of a cent, and entirely escape 9-10 of its just obligation. The zeal and assurance of this theorist is past understanding.

If the utility company is obliged to accept one-tenth of the annual depreciation on its cast iron mains and invest it at 5% compound interest, during a period of 75 years, in order to produce a fund sufficient for replacement at the expiration of that expectancy of life, it will be deprived of all revenues therefrom during that period, because, meanwhile, the property must be appraised for revenue at its depreciated value. At the end of the period it is, in theory, used to replace the whole of the principal investment, which has been gradually shrinking till it is entirely consumed and wholly lost. Professor Bemis' notion is that it is sufficient to restore the investor's gradual loss of his wasting investment when the last farthing of its

value has finally disappeared from use in the public service in the course of 75 years; and that so long as one dollar of the original investment of thousands remains, on which he may claim a return of 6 or 7 or 8 cents, the investor cannot justly complain that he has lost all earnings meanwhile on the thousands of his original investment, which have gradually wasted and disappeared from age and use. The investor's children may be reduced to penury, but, according to the philosophy of the *sinking fund method of financing depreciation*, this is just and squares with the constitutional rule of the inviolability of property, if only the naked principal, accumulated by a process of confiscation or plunder, be restored to the grandchildren after the lapse of 75 years.

The reasoning is not sound which limits the investor's right to earnings upon the present depreciated value of the property used in furnishing the service, and at the same time withholds from him present compensation out of the earnings for the inevitable deterioration of the value of his investment caused by its use in the service. Anything short of full compensation from the revenues derived from furnishing the service, to counterbalance depreciation from use, *as it accrues*, will operate, unavoidably, to diminish and confiscate so much of the principal investment, and will, if continued, wipe out, in course of time, the whole investment. The sinking fund theory is not compatible with the rule in this forum requiring appraisal of the properties at present values, as depreciated by age and use, in order to test the validity of statutory rates of charges. And there is no escape from this method of valuation, except to permit earnings upon capital investments that have been consumed by age and use and entirely disappeared—a system that would burden the service with earnings on capital not represented in the properties employed, which would

be mischievous and intolerable, and ultimately lead to disastrous results to the public and the investor, as shown by Mr. Justice MOODY in the *Knoxville water case*.

Take, for example, the items of *buildings* in the case under review, representing, in round numbers, an actual investment of \$37,000, according to appellant's estimate, the *present* value of which, as depreciated by age and use, was found by the Circuit Court to be only \$24,000. Appellant, by this finding has lost, through depreciation, all revenues on an original investment of \$13,000, represented by the difference between the *replacement* and *present* values of the buildings. If that item stands alone, and is not compensated by withdrawals of earnings to counterbalance the item of \$13,000 depreciation, then appellant has lost its right to earnings on that much of its original capital investment. Setting aside a fractional part of that depreciation so that, when compounded for 30 years, it will provide a replacement fund for the ultimate loss of the entire principal or replacement cost, operates to wholly deprive appellant of *earnings* on the increasing part of its investment covered by the gradual diminution in value, from use of the buildings. But if the amount of that diminution, as it accrues, from time to time, is compensated out of the earnings, and put back into the plant for replacements and betterments, in any part of the plant, then both capital and earnings are maintained without impairment, and full justice is done both to the public and the owner of the utility. However viewed, the *full* amount of depreciation, when it accrues, becomes a necessary cost of service, and a legitimate and proper charge against the revenues, to be compensated *in full*, before any part of the revenues are applicable to earnings upon capital.

In the course of a brief cross-examination on the proper theory of calculating depreciation (printed record, pp. 414, 415), Professor Bemis, himself, practically, but not without

equivocation, admitted that his sinking fund theory was a fake. We quote him briefly to this effect (p. 415):

Q. And yet, in the course of the years, you will concede that it is the right of the investor to have his invested capital kept intact, for the whole period, will you not? A. *Providing* he has not eaten his cake as he went along, as this company has done.

Q. Outside of that proviso you concede my proposition? A. Yes, sir. Certainly. But if they have not saved a reserve fund they cannot ask the consumer to make up what they have used up in the last 40 years.

* * * * *

Q. So the Company should, by some means, preserve unimpaired its original invested capital? A. It should. Although it may distribute it.

We may disregard the effort of the witness to avoid the effect of his admissions, by diverting and insinuating suggestions as to appellant's supposed course of past conduct in "eating his cake as he went along." That was a subject on which the witness neither had nor professed knowledge. The City's accountant, who had knowledge from personal examination of appellant's accounts and records, admitted frankly, as heretofore shown, that no stock dividends had been paid since May, 1900, and that the entire surplus earnings had gone into betterments and replacements. It was also proved, without dispute, by the testimony of appellant's manager, Honeywell, and its vice-president, Frueauff, that replacements were not in fact charged to operation, and that the general construction balance was only increased by the difference in value between the first cost of the displaced and new equipment. We have, also, heretofore shown that the amount of the element of the cost of service, represented by depreciation, is in no sense dependent on what particular disposition may be made

of that portion of the earnings requisite to reimburse depreciations.

The following tables, presenting accurate computations, based on the values found by the Circuit Court, exhibit the operation of the sinking fund method according to the classifications given by Bemis. These tables show, in one column, the accumulated depreciation, which represents the portion of capital on which the sinking fund system, at various periods, totally deprives the investor of earnings. Another column shows the total sum in the sinking fund at the same periods; and a third column shows how much the sinking fund lacks, at the same periods, of making good, or counterbalancing, the reduction of capital through depreciation. The tables furnish irrefutable proof that the sinking fund theory does not permit the investor to maintain his capital intact, creates an unavoidable impairment of capital, deprives the investor of fair and just earnings, and operates to confiscate the use of a steadily increasing portion of his investment. Below is the arithmetical demonstration:

Table No. 1.

Cast iron gas mains—full value.....	\$142,995.00
Depreciation per year—life of 50 years.....	2,859.00
Bemis sinking fund @ 5% annually.....	683.05

	Accumulated Depreciation	Sinking Fund	Shortage
End of 1st year...	\$ 2,859.00	\$ 683.05	\$ 2,175.95
" " 10th " ...	28,590.00	8,591.32	19,998.68
" " 20th " ...	57,180.00	22,585.68	34,594.32
" " 30th " ...	85,770.00	45,381.01	40,388.99
" " 40th " ...	114,360.00	82,512.21	31,847.79
" " 50th " ...	142,995.00	142,995.00	.....

Table No. 2.

Cast iron gas mains—full value.				\$142,995.00	
Depreciation per year—life of 75 years.				1,906.85	
Bemis sinking fund @ 5% annually.				188.98	
Accumulated				Sinking	
Depreciation				Fund	
Shortage					
End of	1st year...	\$	1,906.85	\$ 188.98	\$ 1,717.87
" "	15th " ...		9,534.25	4,077.98	4,456.27
" "	30th " ...		57,195.50	12,555.81	44,639.69
" "	45th " ...		85,798.25	30,180.62	55,617.63
" "	60th " ...		114,411.00	66,821.32	47,589.68
" "	75th " ...		142,995.00	142,995.00	.....

Table No. 3.

Cast iron gas mains—full value less 10%.....					\$128,695.00		
Depreciation per year—life of 30 years.....					2,573.90		
Bemis sinking fund @ 5% annually.....					614.75		
Accumulated					Sinking		
Depreciation					Fund		
					Shortage		
End of	1st year...	\$	2,573.90	\$	614.75	\$	1,959.15
"	" 15th "		38,608.50		1,326.01		27,282.49
"	" 25th "		64,347.50		28,335.89		35,011.63
"	" 35th "		90,086.50		55,404.22		34,682.28
"	" 50th "		128,695.00		128,695.00	

Table No. 4.

Cast iron gas mains—full value less 10%					\$128,695.00
Depreciation per year—life of 75 years.					1,716.00
Bemis sinking fund @ 5% annually.					170.05
		Accumulaed Depreciaton	Sinking Fund	Shortage	
End of	1st year. . .	\$ 1,716.00	\$ 170.05	\$ 1,545.95	
" "	15th " . . .	25,740.00	5,667.97	22,072.03	
" "	30th " . . .	51,480.00	11,296.42	40,183.58	
" "	45th " . . .	77,220.00	27,156.98	50,063.02	
" "	60th " . . .	102,960.00	60,126.27	42,833.73	
" "	75th " . . .	128,695.00	128,695.00	.....

Table No. 5.

30 year life property including buildings and holders only, full value.....	\$58,318.00
Depreciation per year—life 30 years.....	1,944.00
Bemis sinking fund @ 5% annually.....	877.85

	Accumulated Depreciation	Sinking Fund	Shortage
End of 1st year...	\$ 1,944.00	\$ 877.85	\$1,066.15
" " 10th " ...	19,440.00	11,043.35	8,396.65
" " 20th " ...	28,880.00	29,026.98	9,853.02
" " 30th " ...	58,318.00	58,318.00	.....

Table No. 6.

30 year life property including buildings and holders only, full value less 10%.....	\$54,950.50
Depreciation per year—life 30 years.....	1,832.00
Bemis sinking fund @ 5% annually.....	827.00

	Accumulated Depreciation	Sinking Fund	Shortage
End of 1st year...	\$ 1,832.00	\$ 827.00	\$1,005.00
" " 10th " ...	18,320.00	10,403.66	7,916.34
" " 20th " ...	25,540.00	27,345.58	9,294.42
" " 30th " ...	54,050.50	54,050.50	.....

Table No. 7.

Balance of property including all other values allowed by the Court excepting \$4,000.00 for real estate.....	\$378,427.59
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Depreciation per year—life of 20 years.....	18,921.37
Bemis sinking fund @ 5% annually.....	11,448.00

	Accumulated Depreciation	Sinking Fund	Shortage
End of 1st year...	\$ 18,921.37	\$ 11,448.00	\$ 7,473.37
" " 5th " ...	94,606.85	63,250.20	31,356.65
" " 10th " ...	189,213.70	144,015.84	45,197.86
" " 15th " ...	283,820.55	247,047.84	35,772.71
" " 20th " ...	378,427.59	378,427.59	.....

Table No. 8.*

	Line No.	Years	Full Values	Annual Depreciation	Sinking Fund
Cast Iron Mains	1	50	\$142,995.00	\$ 2,859.00	\$ 683.05
" " "	2	75	142,995.00	1,906.85	188.99
Buildings and Holders	3	30	58,318.00	1,944.00	877.85
Balance of Physical Prop'rty	4	20	320,011.72	16,000.00	9,679.00
Balance of Phys- ical Property plus all other items allowed by lower court for value.	5	20	410,428.76	20,521.43	12,418.00

Table No. 9.

	Line No.	Years	Full Values Less 10%	Annual Depreciation	Sinking Fund
Cast Iron Mains	1	50	\$128,695.50	\$ 2,573.50	\$ 614.75
" " "	2	75	128,695.50	1,716.00	170.05
Buildings and Holders	3	30	54,950.50	1,832.00	827.00
Balance of Physical Prop'rty	4	20	288,010.55	14,400.50	8,712.00
Balance of Phys- ical Property plus all other items allowed by court for value.	5	20	378,427.59	18,921.37	11,448.00

Table No. 10.**(Full Value.)**

	Sum of Lines	Depreciation Per Year	Sinking Fund
From Table	1, 3 & 4	\$20,803.00	\$11,239.90
No. 8	2, 3 & 4	19,850.85	10,745.84
	1, 3 & 5	25,324.43	12,978.90
	2, 3 & 5	24,372.28	13,484.84

*Note: Tables numbered 8, 9, 10, and 11 present computations exhibiting the variances in the totals of the item of depreciation, according to the different views possible of the properties subjected to deterioration from use, and the varying estimates of life and value. While the lower estimates are obviously unfair and inadmissible on the proofs, they necessarily condemn the rate assailed as confiscatory, and prove that the lower court's charge of \$8,000 against the revenues of 1907 for depreciation, was considerably less than one-half of the minimum of that item presented by any theory of the proofs.

Table No. 11.**(Full Value, Less Ten Per Cent.)**

	Sum of Lines	Depreciation Per Year	Sinking Fund
	1, 3 & 4	\$18,806.40	\$10,153.75
From Table	2, 3 & 4	17,948.50	9,709.05
No. 9	1, 3 & 5	23,327.27	12,889.75
	2, 3 & 5	22,469.37	12,445.05

The appellant's bill presented the issue of the *value* of its properties comprising its gas plant by an express averment that they were of the value of one million dollars. Responding to that issue the answer of the City (printed record, p. 33) averred:

"That the *replacement*, and *present value* thereof does not exceed *five hundred thousand dollars*, and said last named sum more than represents the capital necessarily invested in the construction, maintenance and operation of such a lighting system."

It stands confessed by the City, therefore, that appellant is entitled to just and fair earnings upon a gas manufacturing and distributing system of the *present value of Five Hundred Thousand Dollars*. The opinion of the Circuit Court increases the confessed valuation by the sum of only \$66,073.59. But if the valuation confessed be adopted, the rate of one dollar is still plainly and obviously inadequate and confiscatory on the conceded facts. It requires \$40,000 to yield 8% earnings on a capital of \$500,000. When depreciation is charged against the revenues at any fair estimate, on the proofs most hostile and least favorable to appellant, the maximum profit applicable to earnings on capital does not exceed \$15,508.86, according to the experience of 1907, and treating as valid the injunction against enforcement of the occupation tax. This is a trifle above 3% on the confessed valuation of \$500,000, and less than 3% on the valuation found by the Circuit

Court. A fairly adequate allowance for depreciation will reduce the per centage of return on invested capital, under the dollar rate, as low or lower than 2%. The undisputed facts shown on the face of the record bring appellant's case within the class mentioned by Mr. Justice PECKHAM in *Wilcox v. Consolidated Gas Co.*, (212 U. S. 42), "where the rate is so low, upon any reasonable basis of valuation, that there could be no just doubt of its confiscatory nature," and in which "there should be no hesitation in so deciding, and enjoining its enforcement, *without waiting for the damage which must inevitably accompany the operation of the business under the objectionable rate.*"

Of course, no reasonable basis of valuation of appellant's properties below that of \$500,000 confessed by the answers can be considered. In so far as the finding of the Circuit Court may control or influence the judgment here, the confessed valuation must be increased by the sum of \$66,073.59. And if the court in this case reserves to itself the function of ascertaining from the evidence the fair value of the property which represents the invested capital, as was done in the *Knoxville water case*, it ought to largely increase the valuation above that found by the Circuit Court, as we shall later endeavor to show.

We have assumed, in presenting the argument that the full loss by depreciation, as it accrues, is an item of cost chargeable against the current revenues, that the court will accept the concurring proofs of adversary parties that 20 years represents the average life of the major portion of a properly equipped gas plant in a town like Lincoln, Nebraska; and that on items where the witnesses diverge the court will not presume farther against appellant's contention than the proofs most favorable to the City warrant—that is, that the court will not assume a longer life of holders and buildings, than 30 years, nor more than a 50 year, or possibly a 75 year life of cast iron mains. The record certainly presents no evidence of collusion. It ex-

hibits, rather, evidence of sharp and even acrimonious controversy. As a professional statistician, offering his learning, as he admits, always on the side of rate reductions, Professor Bemis will not be presumed to have construed the statistical facts against the interests of the City.

We have now to show that basing the per centage of annual depreciation solely upon the conceded or proved average life of the equipment, provides an inadequate sum and is unfair and unjust to the owner of the utility. Where an equipment has a life of 30 years, one-thirtieth of the cost of the *newly installed* equipment is the measure of the value which each year disappears. In this particular computation, to compensate, in annual periods, for the loss of the value in the term of thirty years, the per centum of depreciation must apply to the full replacement value of new equipment. Otherwise, the full loss of the equipment will not be compensated by one-thirtieth each year. Let appellant's buildings, with a replacement value of \$37,000, and a present valuation by the court of \$24,000, again furnish the illustration. Assuming a 30 year life, as does Bemis, one-thirtieth of their full replacement value, or \$1,233 will disappear each year for 30 years. It requires the withdrawal of an equivalent sum from earnings, and its reinvestment each year for 30 years to maintain the capital investment of \$37,000 without impairment. By reappraising the property at \$24,000 after lapse of a portion of the term, and applying the same rate of depreciation, the amount necessary to counterbalance depreciation is reduced from \$1,233 to \$800, and appellant's capital, to the extent of \$433, is impaired and its right to earnings thereon is lost. In figuring depreciation on the basis of the present value of a plant whose parts are of different ages, some reduction of expectancy of life should be made below that of an entirely new equipment. The basis of a 5% annual depreciation, while it might be high in a large city which demands greater permanency in the char-

acter of buildings and other equipment, and offers profitable employment for capital needed for increased cost of construction, seems, on the proofs, the lowest ratio permissible in the case of the Lincoln plant. Professor Bemis testified (printed record, p. 386) that a statute of Massachusetts, in force till after passage of the ordinance in question, enforced the rate of 5% depreciation on all municipal gas companies in that state. This conclusion is not necessary to establish the confiscatory character of the rate; but it aggravates the obvious fact of its inadequacy.

The argument is, in the main, rested upon the two points, (1) that the standard of a 6% return upon the investment, adopted by the lower court, is inadmissibly low, as applied to a local gas enterprise at Lincoln, Nebraska, and (2) that the limited sum of \$8,000, charged by the lower court against the revenues of 1907, as an item of the cost of the service is but a fractional part of that item as shown by the concurring proofs of both parties. Both points are irrefutably established, and the maintenance of either one of them necessarily overthrows the ordinance as confiscatory. The burden on appellant, however, makes it proper to present the details of the controversy, as exhibited by the record, sufficiently to show that the prejudicial errors pointed out must control the judgment.

VII.

The reduction of appellant's revenues by the municipal regulations adopted, and the occupation taxes levied in the year 1906, was, on its face, so radical and destructive, in view of appellant's past experience, that appellant could not accommodate its business thereto. Insolvency or resistance of further rate reductions were its only alternatives.

It was argued below that the circumstance that the Company made a voluntary reduction of its rate to \$1.20 per thousand feet in June, 1904, indicates that sum to have been

adequate on that date, and that subsequent increase of sales, and expansion of business, ought to justify a considerable further reduction at the date when the ordinance in question took effect. Mention of this fact is also made in the opinion of the lower court. That this circumstance cannot operate against appellant in the present suit, upon the proofs adduced, is evident, and for the following reasons:

1. Appellant's effort, by reducing rates, to win the good favor of the public is to be commended, and, if the rate of \$1.20 was in fact voluntarily made, is a circumstance in its favor. To compensate its loss of revenues from the reduction in rates by taking on new business was a labor of some years, and involved the organization of a new business department whose activities reached every tenement in the City, presented the attractiveness and utility of the known devices for substituting gas for other fuel, and compiled a card record of the equipment in each house. That campaign by appellant to restore its revenues and put its business on a fair revenue basis was still on when the ordinances assailed were passed.

2. The truth is, however, that the reduction in the rate to \$1.20 was the result of prolonged agitation by the City Council, upon a proposed ordinance pending before it. "There was an ordinance introduced, or there was talk of an ordinance being produced, and it was put into the hands of a committee, and Mr. Dunn (a councilman) was a member of that committee. * * * And Mr. Dunn stated that the Company had agreed to reduce it to \$1.20, reduce gas to \$1.20, and the matter was dropped." (Thos. H. Pratt, City Clerk, printed record, pp. 274, 275.) To avoid a rate controversy, the appellant submitted to the demand of the rate making body for a reduction, and undertook the slow process of compensating its loss by abnormal activities.

3. The effect of putting the new rate in force during the last half of 1904, was a reduction of net revenues below that of

the year 1903. In 1904 the net revenues, applicable to depreciation and capital earnings were \$51,373.30. That sum was not adequate to compensate depreciation and pay just earnings on invested capital. In 1905, under the same rate, the net revenues applicable to depreciation and capital earnings were \$68,197.08, which was hardly adequate, but on the verge of confiscation, and certainly not extortionate. In 1906 from a cause later explained, the net revenues applicable to depreciation and capital earnings dropped to \$58,729.02, a wholly inadequate sum. During this year the already inadequate rate was reduced one-sixth by the ordinance in question. The courts encourage submission to rates for the purpose of demonstrating whether the enterprise can justly bear reductions. In this case appellant submitted, under threat that a pending ordinance would be passed, to a rate of \$1.20. Its experience demonstrated the inadequacy of that rate. With the inadequacy of its present operating rate established by an actual experience of two and one-half years, can the appellant be criticised for declining further experimentation, at the expense of its financial life, to demonstrate that a still further reduction of one-sixth of the total rate, would be confiscatory? (The figures here employed are those of Mr. Wiggins, the City's accountant, tabulated in Exhibit 122, printed record, p. 497.)

Having shown that the adoption of the \$1.20 rate by the company in 1904 affords no basis for an argument in favor of the present reduction, and that the Company's experience under it furnishes conclusive evidence against the validity of the objectionable rate in question, we now give an exposition of the reductions effected by the action of the City Council during 1906.

When the rate of \$1.20 was established there was no standard of quality of gas fixed by the municipality. The Company then enjoyed freedom from quality restrictions. April 9, 1906, the City Council passed what is known as the "Quality

Ordinance," which was approved April 16, and took effect immediately upon publication. (Printed record, pp. 474, 477.) This ordinance fixes an extreme quality standard. It prescribes an illuminating power of "not less than 18 English sperm candles when burned from a Suggs London Argand Burner, No. 1, at the rate of five cubic feet per hour." It requires a heating power of "not less than 625 British thermal units per cubic foot, at a pressure of 14.7 pounds per square inch and a temperature of 60 degrees Fahrenheit scale." It requires sufficient odor to be readily detected by smell, and that it shall not have to exceed 20 grains of sulphur per 100 cubic feet, nor to exceed 10 grains of amonia per 100 cubic feet, and that it shall contain no sulphureted hydrogen, and that it shall have a pressure of not less than one and one-half inches nor more than five inches of water.

The passage and enforcement of the *quality* ordinance operated as directly to reduce appellant's revenues as would a reduction of its rates. It operated as directly to benefit the consumers and give them additional values as would a reduction of rates. Full sustained conformity to the limitations of *pressure* was not possible, but in all other respects, and in that one respect so far as possible, appellant undertook, and has maintained a compliance. The prescribed penalties made any other course ruinous. The *quality* ordinance was the equivalent of a radical rate reduction. It excluded the use of cheaper coals containing sulphur that had been availed of, at times, to lessen the station cost of manufacture of coal gas, and required shipment of all gas coal from Pennsylvania. It required use of an abnormal quantity of oil in the manufacture of water gas. It required additional purifying devices and labor. The practical result of putting the ordinance in force was to reduce the net revenues of 1906 (during eight months of which it was operative) \$9,-468.06, below the net earnings of 1905, although there was an increase in sales of gas of ten million cubic feet. Its effect

on the revenues was precisely the same as the reduction in rates that became operative in June, 1904, though more radical.

In November of the same year, the ordinance reducing the rate to \$1.00, effective December 1, 1906, was passed; and in December of the same year, the ordinance imposing an occupation tax of $2\frac{1}{2}\%$ of gross receipts, effective January 1, 1907, was passed.

Starting from the basis of operation upon which the rate of \$1.20 was established in June, 1904, and under which that rate was maintained to April, 1906—freedom from quality standards—the combined effect of the *quality* ordinance, the *rate* ordinance, and the *occupation tax* ordinance, (all passed consecutively in 1906), was the equivalent of a flat reduction of at least 30 cents per thousand feet, or one-fourth of appellant's gross revenues.

The significance of this reduction will be appreciated by referring to the following statement made by the City's statistician witness, Professor Bemis (printed record, p. 372): "The total interest and dividends paid out by the eleven Massachusetts companies having over 75,000,000 feet of sales, exclusive of Boston, was 23 cents (per thousand feet) last year." The date when Bemis was examined was May, 1908, so that his reference was to the year 1907. It is pretty severe to restrict a Nebraska local enterprise to the level of the rugged industrial conservatism of the cities of Massachusetts. If the statistical facts were correctly given by the City's professional statistician, the reductions noted involve a gross sum more than sufficient to pay all just capital earnings, and justify the statement of Manager Honeywell, elsewhere quoted, that their effect and operation would be to wipe out all of appellant's capital earnings. That statement squares with the results previously experienced in operating under the rate of \$1.20. But appellant does not have the burden of proving that the reductions in its revenues will deprive it of *all* capital earnings.

It is sufficient to show, clearly, that it will thereby be deprived of *some part* of the fair and just return upon its capital that is protected by the Constitution; and that much, its past experience under the rate of \$1.20 clearly demonstrates.

The financial problems attending the furnishing of a public service by a utility company, cannot be ignored in testing the validity of municipal regulations. Unless the earnings are sufficient to command capital for the prosecution of the enterprise, the public must either forego the service or provide for it by taxation. Where a reduction of rates materially affects general revenues, some counterbalancing source of revenue must be open and availed of to avoid insolvency. In the case of a public carrier, a statutory reduction of the rate on any given commodity, may be counterbalanced by an increase in the rate of some other commodity. But a gas company stores its entire manufactured product in and distributes it from a single holder. It deals in a single commodity, and a reduction of the rate for gas affects its sole source of revenue. Expansion of its business may permit it to live on a smaller per centum of profit. It may reduce somewhat, by the increased economy of operating on a larger scale, the manufacturing and distributing cost. But these elements of economy are relatively small in a town of forty thousand people. The general cost per thousand feet is approximately fixed, is inevitable, and cannot be escaped. At best the restoration of the revenues from the only source open is a slow process, requiring years of patient labor and exploitation, and depending, even then, on the personal skill of the manager.

There must always be a reasonable margin between the purely operating cost of manufacture and distribution, and the sum charged, to cover the items of depreciation and just earnings on the capital. According to the experience of the eleven Massachusetts Companies, as stated by Mr. Bemis, 23 cents per thousand feet were paid out for capital earnings alone. The

appellant's operating costs, as classified by the City's accountant (printed record, p. 494), were for the year 1906, 82.68 cents per thousand feet. The item of depreciation is shown elsewhere to aggregate at least \$25,000 on the whole plant, which, distributed upon the gross sales of 153,663,000 feet (Ex. 122, p. 497) loads each thousand feet with a cost charge of 16.26 cents. Accepting the Massachusetts basis of 23 cents as requisite to discharge capital earnings, and adding the three elements named, requires a rate of \$1.22, on the experience of 1906, to maintain appellant's plant. Still appellant operated at \$1.20. The ordinance assailed was by its terms effective during the whole of the month of December, 1906, when experience proves it would not have yielded any capital earnings.

The operating cost per thousand feet of gas for 1907, excluding capital earnings and depreciation, was 79.12 cents, (Ex. 119, p. 494); and the same process which we applied to the 1906 experience, necessitates a rate of practically \$1.20 to pay earnings on the Massachusetts basis of 23 cents per thousand feet of gas sold, which is inadequate at Lincoln, Nebraska. This proves again that the rate of \$1.20 reduced the appellant's revenues to the verge of confiscation, and that the rate of \$1.00 as applied to that year's business would have been clearly and obviously confiscatory.

The experience of these two years demonstrates the further fact that it is not possible to counterbalance the loss of 20 cents per thousand in rate by taking on new business. The sales of 1907 show an increase over 1906 of over 25,000,000 cubic feet, approximately 16% (Ex. 122, p. 497). Yet, with this splendid increase, the operating cost per each thousand feet (exclusive of capital earnings and depreciation) was only reduced 3.56 cents (Ex. 119, p. 494). It requires a slow process extending over a period of many years to accomplish an aggregate reduction of 20 cents per thousand feet in the operating cost of manufacture and distribution. Had the reduction

been made to take effect upon a sliding scale of 3 cents or 3 cents and a fraction each year, corresponding with the possibilities of reduced operating cost, it might have been possible for appellant to have accommodated its business thereto, but not otherwise.

The radical reductions in appellant's revenues cannot be justified on the theory that the previous rate of \$1.20 was extortionate. The experience of the Company under that rate, above detailed, proves, to the contrary, that the rate of \$1.20 reduced appellant's revenues to, at least, the border line of confiscation, and yielded not a farthing of speculative profit on a hazardous business. Under that rate the service was given at cost plus the lowest admissible return on invested capital. Operating on that basis, and sailing thus close to the rocks, it was not possible for appellant to undertake to accommodate its business to the radical, immoderate, and destructive reductions in its revenues entailed by the municipal regulations in question, without certain financial wreck. These considerations prove the impracticability of submitting, for purposes of judicial inquiry, to the objectionable rate, as well as the merits of appellant's cause.

VIII.

The issue is whether the ordinance requiring the rate of one dollar to become effective December 1, 1906, is valid. The question litigated was not whether the lapse of time would develop conditions justifying that rate at some future date, but whether its enforcement at the time it was assailed by the bill and arrested by injunction would have operated to confiscate the whole or a part of appellant's fair and just capital earnings.

The general doctrine asserted in the headnote is so well established that we may omit reference to the adjudged cases as superfluous. We here concern ourselves only with the

proper application of that rule to the present case. To avoid imposition of ruinous penalties, appellant had either to arrest their operation by injunction or submit to a clearly confiscatory rate. It chose the former of these alternatives, and for the services rendered in December, 1906, and thereafter, collected at the rate of \$1.20 under the protection of a restraining order, while its suit to establish the invalidity of the lower rate was proceeding to judgment. The decree of the lower court adjudges the lower rate of \$1.00 valid from the date which by its own terms, December 1, 1906, it became operative. According to that decree, appellant wrongfully collected from the consumers in the year, 1907, excess charges in the sum of \$35,-873.26 (printed record, p. 43). Like collections from excess rates were made in 1908, 1909, and 1910, all of which, if the decree of the lower court is sustained, it holds for the use of its patrons. This appeal will determine, definitely and finally, the liability or nonliability of appellant for the amounts of these excess collections, beginning with the service rendered during the whole month of December, 1906. The District Judge who heard the case had such grave doubts as to the correctness of his decree, upon the proofs, that upon allowing the appeal, he entered an order (printed record, p. 52) restoring and continuing the injunction arresting the rate, upon condition that appellant give a further injunction bond of \$150,000, conditioned on the repayment of all excess charges collected. This bond, conditioned as ordered, was given (printed record, pp. 53, 54). The present appeal will determine appellant's liability for collections in excess of the dollar rate to at least the full penalty of the bond, beginning with date stated, when, by ordinance, the rate became operative. All these funds are claimed by appellant as its just earnings, within the protection of the Constitution, which enforcement of the objectionable rate would have confiscated. An affirmance here, under the conditions stated, will operate, retroactively, to put

the ordinance in force from December 1, 1906. If the rate during that month, and during the period of time covered by the proofs, is clearly shown to be inadequate and confiscatory, that consideration should, it seems, determine the judgment in favor of appellant.

Under the conditions noted, no speculation can justly be indulged here, as to whether the proofs may indicate that it is probable at some future date the rate, through increased business and improved conditions, may become adequate, or that such conditions may have come during pendency of this appeal. Appellant's liabilities for at least one-sixth of its gross revenues during the period of inquiry, running back to December 1, 1906, are unavoidably in contest.

We are not at liberty upon the hearing of this appeal, as we view it, to look into the future, and indulge the presumption that the rate in contest will persist for any particular period of time and that, therefore, deficiencies in capital earnings which it is clearly shown would have resulted from enforcement of the ordinance in earlier years of its life, may be compensated in later years. Does not the following rule state the correct view point for testing the adequacy of a service rate? "A rate should remain in effect so long as it is fair but no longer. When changed conditions cause a rate to become unreasonable it should be readjusted to a fair basis." (Wis. R. R. Com., *In re La Cross Gas & Electric Co.*, No. 64, pamphlet, p. 26.) The presumption cannot be indulged that a rate will be continued after it has become unfair to the public for the mere purpose of compensating past deficiencies accruing to a utility company from a previous unjust rate. Nor can such presumption be indulged from the history of rate regulation by the appellee City. The City Council, by threat of official action, in June, 1904, obtained a reduction of the previous rate of \$1.50 for light and \$1.25 for fuel to a common rate of \$1.20. In April, 1906, it greatly reduced appellant's revenues by the passage

of the *quality* ordinance, elsewhere referred to; in November, 1906, it passed the rate ordinance in contest; and in December, 1906, it imposed the occupation tax of $2\frac{1}{2}\%$ of gross receipts. Nor can we here indulge the presumption that the injunction arresting the operation of the occupation tax will effect any change of municipal policy touching impositions of that sort, longer than is requisite, in the orderly course of its proceedings, to pass a new and perhaps more drastic ordinance, correcting the faults that overthrew the former one. As an illustration of the considerations here suggested, and with no purpose to claim any benefit from facts not disclosed in the record, we show in an appendix petitions in pending suits, one on a newly passed ordinance, and one on the original tax ordinance, the new ordinance, in terms, saving such rights as the City may have under the old ordinance. The illustration gives point to the argument that the rate should be tested according to its adequacy, or inadequacy, as shown by the proofs covering the period of inquiry. It may, or may not persist longer than the litigation; but on that subject no presumption may, justly, be indulged.

XI.

The valuation of \$566,073.59 on which the Circuit Court found appellant was entitled to a reasonable return, is much less than the actual capital employed in its gas service, as shown by the proofs.

Witness Michael E. Malone, called by appellant, is a practical gas engineer of twenty years experience, and is superintendent of the gas department of the Denver Gas and Electric Company. His ready exposition of the processes of manufacture (printed record, pp. 69-72) shows his complete mastery of the requirements of such a plant. His testimony shows him to be equally familiar with the prices of appliances,

labor and material (printed record, pp. 68, 69). He examined all the properties of appellant, made measurements of the apparatus and made a note of everything. He had access to the plats of mains and the works of the Company, measured accurately all of the different street mains, noted what streets were paved and unpaved, drove over most of the mains in a buggy, chicked up so as to make an accurate detailed statement, went over his items deliberately with assistance of accountants, and corresponded with manufacturers to get present price of manufactured apparatus (printed record, p. 69). Malone's written estimate, verified by his oral testimony, is exhibit 1, (printed record, pp. 236-242). Excluding valuations for franchise and going value, he was of the opinion that the value of appellant's properties employed in its gas service is \$904,591.70. The summary of his items is shown on page 236 of the printed record.

Pages 236, 237 show coal gas apparatus in detail	\$80,605.00
Pages 237, 238 show water gas apparatus in detail	31,503.00
Page 238 shows real estate and buildings in detail	44,486.00
Page 239 shows mains in streets not paved.....	90,578.00
Page 240 shows mains in paved streets.....	130,027.00
Page 241 shows gas services.....	107,106.82
gas meter connections.....	13,184.00
piping for gas ranges.....	16,500.00
gas meters	36,282.90
Page 242 shows working capital.....	59,146.88
organization expenses	24,950.00
By his testimony he adds, and his summary shows	
Page 236 Engineering cost	13,756.00
contingent or overhead charges.....	57,884.00
interest during construction.....	39,050.00
cost of obtaining money (not now claimed)	149,512.10
Total	\$904,591.70
Reasonable allowance for going value and franchise	100,000.00
	<u>\$1,004,591.70</u>

Of the items of value thus shown the Circuit Court disallowed or reduced the following, as shown by its opinion, (printed record, pp. 42, 43):

Items Reduced or Disallowed by the Court.

Water gas apparatus, item of steam boiler.....	\$2,225.00
Real estate and buildings—	
Reduction of real estate.....	3,200.00
Reduction of buildings and fixtures.....	12,643.00
Gas meter connections, reduced.....	6,780.00
Working capital, reduced.....	9,146.88
Organization expenses, reduced.....	21,950.00
Engineering (consequent on reduction of totals) ..	1,339.78
Contingent or overhead charges reduced.....	22,884.00
Interest during construction, disallowed.....	39,050.00
Cost of obtaining money disallowed.....	149,512.00
Going value and franchise, disallowed.....	100,000.00
Reductions for depreciation.....	49,668.17

Of the variances noted, the item of real estate (reduced \$3,200) was trivial, and though a higher valuation was shown, it will not be made the subject of controversy. The item of depreciation (\$49,688.17), though large on the proofs, was allowed in obedience to the rule stated in the *Knoxville Water Case*, and we shall not make it the subject of discussion. The cost of obtaining money (\$149,512.00), we have shown elsewhere, is to be considered in determining the rate of the just and fair earnings on capital, and its disallowance will not be the subject of further contest. In disallowing or reducing other items, however the court, as we think committed errors of law which should be corrected. We present the merits briefly.

Omission of Steam Boiler.

Malone's estimate of the cost of gas apparatus was accepted on both sides. Water gas is made of steam, and a *boiler* for generating steam is an indispensable part of the

apparatus. It so happens that the economy of operation is furthered by piping the steam from the boilers of great capacity installed at its own electric station contiguous to the gas station. The mere generating cost of the steam, ascertained by keeping an account of the fuel and labor is credited to the electric department, without including any profit. The electric department derives no profit on the added equipment necessary to supply the steam for manufacture of water gas. The added capacity for this purpose is one 150 horse power boiler, installation of which will actually cost \$2,225. Disallowance of this item in the estimate of water gas apparatus is an obvious error or oversight.

Value of Buildings Understated.

Touching the item of Buildings, the engineer, Malone, included the fixtures, and worked out the building costs in detail, giving the specific use to which each house was put. Pursuing this plan his total estimate was \$37,286 of which he apportioned to buildings \$32,546, and to fixtures \$4,740 (printed record, p. 238). Louis Jensen, a builder called by the City, gave a *rough* estimate based on cubic contents, which did not cover fixtures, that the replacement cost of buildings would be \$39,934. He lost sight of some small buildings. He gave the *present value*, upon a like *rough* estimate of depreciation at \$28,970.97 (printed record, p. 325). On the argument below the City's schedules conceded the valuation of the fixtures to be \$4,740, in respect to which it offered no proofs. Apportioning to the gas department is *relative* proportion of two small buildings used in common by the gas and electric departments, (barn \$333 and blacksmith \$165), is seems the showing of the City, as to present values of buildings and fixtures, must be ascertained by adding the sums of \$4,740 for fixtures and \$498 for barn, etc., to Jensen's estimate of \$28,970.90 of the present depreciated value of other items, which

makes \$34,208.97, instead of the lesser sum of \$24,643. Malone's estimates (p. 238) are shown in the following table:

Water gas generating house.....	\$5,200.00
Coal gas retort house	6,750.00
Purifying house, engine, condensing and meter rooms	14,550.00
Boiler room	1,250.00
Coal sheds	2,475.00
Oil house	1,335.00
Street-main governor house	448.00
2-3 barn	335.00
1-2 blacksmith shop	165.00
Realty fixtures (total)	4,740.00
Total	\$37,286.00

Jensen's testimony in behalf of the City, tabulated, is as follows (p. 325):

1 building—use not identified—present value.....	\$10,395.00
Center building—use not identified	15,047.00
West building—use not identified	
Main part	\$6,550
West part	1,092 7,642.00
Coal shed	500.00
Chimneys	3,700.00
Electric motor house	650.00
Total	\$39,934.00

Jensen on cross-examination admitted he did not know the depth of the footings, and that he would go more into details if he were figuring on a contract. He had gone the day previous to appellant's premises with the City Water Commissioner, Mr. Tyler. He said (pp. 326, 327):

Of course Mr. Tyler was with me, and we consulted as regards to cost at the present time, and so we put it a little higher. In other words he put it at 6 cents a cubic foot. That class of buildings we sometimes estimate them from 7 to 10 cents a cubic foot, and he rather thought that this class of buildings should be put at about 6 cents. And so I yielded and

set that price on it. * * * Q. And the time you had would not permit you to run out the details? A. No sir. * * * Q. What did you estimate for the receptacles for the tar that are excavated into the ground, and things of that kind? A. We did not estimate that, we just estimated the buildings. Q. Did you make a close enough inspection so you could tell what sort of cisterns or holders they have for tar in the ground? A. No sir. We did not investigate those things at all. Q. There are some details you probably haven't included? A. We just included the buildings, no material or anything else.

Jensen figured 9 inch walls only, while the estimate of the engineer, Malone, gives details of a 12 inch wall. It is impossible to tell what Jensen included, or what he omitted, or to compare his estimate on a specific item with that of Malone. His testimony does not even raise a contest on the value of this class of appellant's property. One of the buildings was new, and after a reasonable allowance for depreciation, the sum stated by the lower court should be increased, at least, by \$10,000.

Value of Gas Meter Connections Understated.

Malone's testimony on the item of gas meter connections (printed record, p. 81) is as follows:

Q. Now you have had an item in the summary you gave for gas meter connections; state what gas meter connections are and what it costs the company, what each connection costs? A. Usually in running a gas service, the pipe that I just explained here, and the number of them, we punch a hole, after digging the trench up to the house, we punch a hole through the front cellar wall whether there be a cellar or not, sometimes we have to run a pipe several feet under the parlor or sitting room before we get to the cellar wall, after we get through we generally run 10 or 15 feet of pipe, frequently the consumer insists that we set the meter on a certain wall to get away from the furnace or ice box, or coal bin or something, and the average in a great many cities runs from 10 to 12 feet of pipe and then there are two sets of meter connections they are sometimes made of lead pipe which contains a shut off

cock that in case of accident you can shut the meter off, and two unions that screw on to the meter and altogether we estimate the cost of that at \$2.25 each, there are some 6,304 meter connections in Lincoln.

Q. What, in your opinion is the reasonable and necessary cost of that work to this company? A. Well, I have frequently had men work for me who have made meter connections and they have got to be pretty busy connecting them at \$1.25 each,—to make anything,—although you can buy a fair quality for \$1.05 each, and it costs about \$1.25 for the labor.

Q. What do you estimate the fair and reasonable aggregate cost to the company on that particular item of property?

A. It amounts to \$13,184.

Q. Are these meter connections necessary to be made in order to be able to sell gas to the individual tenant? A. Yes, sir.

Q. And in actual practice does this company make them?

A. Yes, sir.

We are unable to see any reasonable basis for finding the reproduction value of this item to be only \$6,304. There should be added \$6,780 to the replacement value of this item. After subjecting this sum to a depreciation of 10% it will increase the net valuation by the sum of \$6,102.

Value of Working Capital Understated.

This item was perhaps understated by witness Malone at \$59,146.88 (printed record, p. 242), but even that figure was reduced by the Court to \$50,000. The gross earnings of the Company for 1907, under the rate of \$1.20 were \$215,000, and for 1906 at the same rate \$185,000. (Exhibit 122, printed record, p. 497.) Bills were shown to be collected monthly, the *discount* day for payment of the previous month's bill being on the 6th of the following month. Upwards of 6,000 meters must be read, and individual statements based on the reports of such readings must be delivered to the consumers on the first day of the month. This requires at least ten days time,

so that the average term of the enforced credits is at least one and one-half month, or one eighth of a year. The credit extended is a necessary part of the capital. The Merchant who carries a \$25,000 stock on hand, and carries his customer for \$25,000 sold on credit, employs in his business a capital of \$50,000. The appellant must trust the consumers of gas for \$25,000, which represents that much money employed in manufacture and distribution, in advance of receiving any actual return thereon. This item is not otherwise accounted for, and is to be covered by working capital. Malone's estimate of \$10,000 for pay rolls and supplies, embodied in his schedule (p. 242) is, therefore, wholly inadequate, and leaves approximately \$15,000 of the capital actually employed unaccounted for. The office appliances, office furniture and fixtures, shop tools, street department tools, plant tools, horses, wagons, harness, and the like, which comprise a considerable part of the item of estimated working capital, ought probably to be included in the inventory of the general properties of the plant. Grouping all this class of property together, in the manner shown by the estimate referred to, it is obvious that the working capital actually employed exceeds \$60,000, and at least \$10,000 should be added to the allowance made by the Court.

The Items of Engineering, Supervision, Interest during Construction, and Contingent or Overhead Charges, were Undervalued.

No complaint is made of the basis ($2\frac{1}{2}\%$) on which the lower court estimated the cost of mere engineering. The items for other supervision, contingent or overhead charges, and interest on funds during construction and until the plant can be put upon some fair revenue basis, are not fairly represented or compensated by the sum of \$25,000 mentioned in the opinion of the lower court. In actual practice of constructing plants of

any considerable magnitude there are inevitable breakage and waste and unavoidable loss of both materials and labor; there are occasional accidents entailing liabilities for damages, council fees and costs; and there are other kindred incidents, which increase the total cost very much beyond the literal measurements shown on the drawings of the engineer or architect. These contingent or overhead charges run to as high as 20%. No witness or party has disputed the legitimacy of this element in the cost of construction, and the Circuit Court recognized it as just to the extent only of \$25,000, on work of more than \$500,000. This allowance is less than 5%. It requires no extended research to show precedents approving sums much larger, and more nearly in harmony with the proofs in the present case. The Wisconsin Railroad Commission allowed 12% in the case of the Madison Gas Plant for "engineering, supervision, interest during construction, contingencies, etc.," and even then refused to disturb rates until new improvements were first "placed on a fair earning basis." (*In re Madison Gas & Electric Co.*, 7 Wis. R. C. R. 156, July 5, 1911.) Appellant presented its estimate, in the present case, by the testimony of Malone (printed record, p. 75) as follows:

Now comes the contingent expenses. That is an expense that will accrue on any job of \$5,000, and upwards; and all large corporations or factories always figure a contingent expense, I am told, on a job of this size. I have never had any experience in putting up a job of this size. I have placed that at 12½%. It varies all the way from 5% up to 20%. On a job of this size it would run at least 12½%. That contingent expense does not include the expense of the engineering. Neither does it take in the real estate. Now take it on the figures \$543,072.76: that amounts to \$67,884.

Elsewhere, in his examination, Malone detailed the incidents which made such increased cost unavoidable, but there is no need to burden the brief with further references, because all parties agree upon the justness of the item. In the course of

the examination of Professor Bemis, the City's statistician (pp. 394, 395) occurs the following:

Q. I want to ask you if it is not an acknowledged truth that, in actual practice, contingencies are necessarily counted upon by constructing engineers which add to the theoretical or estimated cost of practically every public improvement that is ever constructed; that the cost invariably goes beyond the theoretical estimate, in actual practice, deduced from statistics or estimated by the architect or engineer? A. That I agree to. That is what is put in commonly as overhead charges, where it is customary to allow from 10 to 15 per cent to overhead charges, including interest during construction.

The parties were almost in accord, therefore, as to the amount, and approved precedent concurred with the estimate of the witnesses. While Bemis was not precise, it may be presumed he allowed 15% where the item of interest on money during construction was included, and 10% otherwise. In the form stated in the opinion of the Circuit Court "contingent expenses in construction \$25,000," separate and apart from the consideration of *interest during construction*, there should be added at least \$37,500 to conform to the proofs and approved precedent; because in finding the sum on which the appropriate per centum is to be computed the item of *buildings* must be added.

This leaves still to be considered, as a separate item, the portion of appellant's capital represented by the *use* of or *interest* on money expended in construction of its plant during the period of building, and until it is possible to put it on some reasonable revenue basis that will enable the plant to carry its own interest or an equivalent capital earning burden. To execute a construction enterprise involving upwards of half a million dollars, the capital investment must begin with the employment of the engineer and continue through the long and tedious course of construction, until the manufacturing and distributing plant are complete and ready for operation;

and even then, before the invested capital can be put on any fair revenue basis, a public patronage must be obtained and devices installed in private tenements with services properly run and connected with the mains. During this long interval the capital is dead and unproductive; and yet no one is so bold as to say the investor must forego all profits on his capital, during that interval. The interest, or charge for use of the capital, is incident to and a part of the cost of construction. If not allowed in the construction account, it is wholly lost to the investor. It cannot be accounted for or compensated in the operating cost, because the plant is not in operation and has no revenues against which it may be charged. Upon these obviously just considerations the courts hold interest on invested capital during construction to be a legitimate element of replacement value, as a matter of course.

"And a fair rate—usually the prevailing rate—of interest, upon the money invested in the plant during construction, and before completion, is as much a part of the cost of construction, as is the money, itself, which is expended for materials and labor." (*Brunswick & T. Water District v. Maine Water Co.*, 99 Me. 371, 59 Atl. 537, 542.)

"There is no doubt that interest at a fair rate on the capital invested in materials and labor that remain idle during construction is as much a part of the cost of construction or reproducing a railroad as is the money paid for those materials or that labor." (Per SANBORN, C. J., in *Shepard v. Northern Pac. Ry. Co.*, 184 Fed. 809.)

But the justice of this item of cost was not in contest before the lower court. The City's brief before that court conceded that a fair rate of interest on capital, idly invested during construction, was a legitimate item of replacement cost or value. The City will hardly contest the point here. If it do so, its argument against adding this just item of invested capital must be fruitless and idle, because neither reason nor precedent can be found to justify its exclusion. In the mass of figures pre-

sented the lower court doubtless omitted it inadvertently. It only remains to ascertain its amount. Malone figured 1 year's interest on the cost of construction (printed record, p. 236). He figured only a rate of 5%, however, while the proofs show the current rate of interest for a local enterprise of this character in Nebraska to be 8%. Figuring the cost of construction at \$500,000, only, there should be added to the court's estimate of value for this element alone \$40,000.

Some substantial sum should be allowed as a capital investment for franchise rights, or "going value," or both.

The table following page 242 of the printed record shows that appellant in 1906 had meters and service connections with 6,110 gas consumers. That is doubtless a large number in a town of 40,000 inhabitants, and shows how well and energetically the business had been promoted. The lower court ascertained the amount of appellant's capital entirely upon the basis of replacement values, less depreciation. Appellant has a plant *in operation*, connected up with 6,110 patrons. To find the amount of its capital, it is requisite, therefore, to find the replacement value of its plant *in operation*. The problem, then, is to find the value of replacing the plant, promoting the business and connecting with 6,110 consumers. How can the consumer's be obtained, so as to make the operation of the plant self sustaining, or profitable? In the *replacement* problem, we must start at the foundation, without patrons. The franchise must first be obtained, at the present state of growth of the municipality, when the City is not under necessity to offer the same generous terms to obtain the service that it was compelled to do when practically a village in 1873. The probabilities are that a perpetual franchise, free of obligation to share profit with the municipality, can not now be obtained. The franchise grants are property. They have some measure

of value, and represent some part of the capital investment of the present grantee, appellant.

Again, in reconstructing the plant, capital must be contributed to sustain an organized campaign for business, effective to take on and connect up with over six thousand patrons. As a reconstruction proposition, the vast expense of accomplishing this end cannot be charged into operating cost, for operation is not yet an established fact, and there are no revenues, or not sufficient revenues, against which to charge so large a sum. It is enevitable and unavoidable that this necessary cost of putting any part of the invested capital on a revenue basis, must be borne by capital contributions. Being inevitable, the appellant, of course, did not escape it. The appellant bought and paid for the original plant, *in operation*, and so paid for placing the plant in operation. That cost is as much a capital cost as any other part of the plant. Take the case of promoting a daily newspaper and putting it on a fair revenue basis: It is an acknowledged fact that it costs, ordinarily, treble, or quadruple, or quintuple, the value of the machinery and equipment employed. To gather patronage, for circulation and advertising, sufficient to make the enterprise profitable, requires these necessary capital contributions. The last named business is extreme, but it embodies an element that is as surely present in one case as the other. Each enterprise, has a property right in the earnings derivable from capital so invested, and the reasoning is not sound which excludes it. It is not "good will" in the commercial sense of that term, but a necessary and justifiable capital expense actually incurred in promoting and exploiting a particular utility.

That the items of franchise, and "going value" both represent legitimate subjects for investment of the primary capital, seems well settled by the judgments of this court. (*Monongahela Navigation Co. v. United States*, 148 U. S. 311-345;

National Waterworks v. Kansas City, 62 Fed. 853, 10 C. C. A. 653, 27 U. S. A. 165, per Mr. Justice BREWER; *Omaha v. Omaha Water Co.*, 218 U. S. 202, 203.)

In the latter case (218 U. S. 202, 203) it was said in the opinion by Mr. Justice LURTON:

"The difference between a dead plant and a live one is a real value, and is independent of any franchise to go on, or any mere good will as between such a plant and its customers. That kind of good will, as suggested in *Wilcox v. Consolidated Gas Co.*, 212, U. S. 19, 53 L. ed. 382, 29 Sup. Ct. Rep. 192, is of little or no commercial value when the business is, as here, a natural monopoly, with which the customer must deal, whether he will or no. That there is a difference between even the cost of duplication, less depreciation, of the elements making up the water company plant, and the commercial value of the business as a going concern, is evident. Such an allowance was upheld in *National Waterworks Co. v. Kansas City*, 27 L. R. A. 827, 10 C. C. A. 653, 27 U. S. App. 165, 62 Fed. 853, where the opinion was by Mr. Justice BREWER. We can add nothing to the reasoning of the learned Justice, and shall not try to. That case has been approved and followed in *Gloucester Water Supply Co. vs. Gloucester*, 179 Mass. 365, 60 N. E. 977, and *Norwich Gas & Electric Co. v. Norwich*, 76 Conn. 565, 57 Atl. 746. No such question was considered in either *Knoxville v. Knoxville Water Co.*, 212 U. S. 1, 53 L. ed. 371, 29 Sup. Ct. Rep. 148, or in *Wilcox v. Consolidated Gas Co.*, *supra*. Both cases were rate cases, and did not concern the ascertainment of value under contracts of sale."

The cautionary reference to the cases of the *Knoxville Water Company*, and the *Consolidated Gas Company*, as not controlling in the case of an appraisal for sale, ought not to militate against the application of the declared general rule to a case involving the validity of rates, for the following reasons:

1. The opinion quoted differentiates between the value represented by "the difference between a dead plant and a live one," and the mere factor of *good will* in a business enjoying a

complete monopoly (disallowed in *Consolidated Gas Company's case*). This differentiation applies to the subject matter of the different classes of property, only, and not to the character or object of the proceeding or inquiry.

2. In the *Knoxville Water Case* the master found capital investments represented by \$10,000 for "organization, promotion, etc.," and by \$60,000 for "going concern." The court did not exclude these valuations, but in respect thereto said: "We express no opinion as to the propriety of including these two items in the valuation of the plant, for the purpose for which it is valued in this case, but leave that question to be considered when it necessarily arises. We assume, without deciding, that these items were properly added in this case." (212 U. S. 9.) Neither that case, nor the case of *Consolidated Gas Company*, ruled concurrently on the same day, either condemned capital investments of this character, or excluded them from consideration in rate controversies of this character. It must be conceded, however that the *Knoxville Water case* expressly left the subject open for consideration.

3. As an original question, the inquiry is, whether the admitted elements of proper and appropriate capital investment, rigidly recognized and enforced in appraising valuations for condemnation purposes, and for involuntary sales, shall be taken into account in determining what is a just and reasonable return on invested capital, for the purpose of testing the adequacy of a rate? And, as an original question, it must be conceded that in projecting a public utility enterprise legitimate applications of capital contributions include: (1) the necessary cost of corporate organization; (2) the necessary cost of obtaining a franchise to conduct the business of a public utility, including right to occupy the streets and public ways with its appliances; and (3) the necessary cost of exploiting the public patronage to the point of placing the business on a fair revenue basis. Each of these three elements of cost must, necessarily,

be first met by capital contributions, before the plant can be said to be in operation and capable of carrying its own burden of operating cost and capital earnings. If, for the purpose of depreciating capital in the interest of cheap public service, the court may disregard the actual capital expenditures, and determine the amount of capital necessarily employed by the "replacement value, less depreciation," it then becomes necessary to enquire what is the replacement value of appellant's plant *in operation*, connected with upwards of 6,000 consumers. This is by no means unjust to the public. The public enjoys the economies in operation brought about by the enlargement of the business; but for the capital expenditures incurred in promoting and exploiting the particular utility the ratable cost of serving a smaller number would be greater. Again, it was expressly ruled in the *Consolidated Gas Company's Case*, that it is legitimate for a purchaser to make very large capital investments in the acquisition of a *franchise* of a company, or companies, in actual operation; and that after such transfer the capital invested in the *franchise*, must have a fair return out of the revenues derived from operation. The purchaser stands in the shoes of the original grantee and promoter, or else the court has looked only to the form, and not the substance. The principle of compensating capital investments of this character, being admitted, justifies employment of capital therefor by the original investor, as well as the subsequent purchaser. From this logic there is no escape.

On the proofs it is submitted that \$100,000 is a moderate and just estimate of the capital expenditures and the actual value of the elements assignable to going value—the actual cost of promoting business and obtaining 6,000 consumers—and franchises.

Recapitulation.

The foregoing presentation shows that the Circuit Court has overlooked and failed to take into account the following

proper and necessary capital investments of appellant, which are actually used and employed in giving gas service.

1. Steam boiler for making water gas.....	\$2,225.00
2. Understatement of present value of buildings	10,000.00
3. Understatement of meter connections.....	6,102.00
4. Understatement of working capital.....	10,000.00
5. Understatement contingent expenses of construction	37,500.00
6. Interest on idle capital during construction...	40,000.00
7. Promotion of business, or going value and franchise, as elements in replacement value	100,000.00
<hr/>	
Total omitted and understated.....	205,852.00
Add valuation found	566,073.59
<hr/>	

Lowest permissible valuation\$771,925.59

While the valuation, as found by the lower court, must necessarily condemn the rate of \$1.00 as confiscatory, a just consideration of the amount of the capital in fact necessarily employed to give the service, greatly emphasises and aggravates the plain fact of its inadequacy to cover actual cost of operation, depreciation, and a just return on capital invested. These considerations further demonstrate that there can be no just claim that appellants bonded indebtedness exceeds the value of its capital invested in both gas and electric plants. There is in truth a safe margin of actual value above the aggregate of all outstanding bonds.

X.

None of the valuations of the different classes of appellant's properties were overstated in the opinion of the lower court.

We present this issue, not without hesitation, because of the wide scope of inquiry reserved to this court by the ruling in the *Knoxville Water Case*, and on the theory that appellant has the same burden in this court as in the Circuit Court. Otherwise we would not extend the argument, but rest upon the findings made below.

One argument of the City, addressed to the lower court, which we may presume will be renewed here, was directed against giving any just consideration to the items of gas service pipes extending from the mains to the lot line, and thence to the tenement in which the service is installed. The argument was that a considerable part of this cost is in actual practice collected from the consumer. The lower court held against the City's contention and allowed the total valuation of gas services at \$107,106.82. In this ruling there was no error.

The service lines are assignable into two general divisions, (1) one part being in the public street connecting with a stop at the curb or lot line, and (2) one part being constructed on private premises. It is not unusual to collect from the consumers a part of the cost of extending the service from the lot line into the tenement. But the charge, even then, made to the consumer, cannot prudently be made so large as to discourage connection, and in promoting business the Company not infrequently bears the entire cost of the service line into the tenement. This circumstance, that the consumer partly reimbursed the Company for the cost of that part of the service from the lot line to the tenement is the basis of the City's assault on this item of replacement value.

But the sum claimed by the Company did not cover the full cost of service into the tenement. Some of the streets of Lincoln are 120 feet in width from lot line to lot line. Generally its streets are 100 feet wide. But some streets are 80 feet wide, or even as narrow as 60 feet. In estimating the capital expenditures for services the Company claimed only the cost of laying fifty feet of the service line, from its main in the street to the lot line, the cost of which is \$13.50. By reference to Exhibit 100 (p. 472) it will be seen that the services are classified as "services" and "curb services." The latter are wholly a capital investment, and the former are, in part, a capital investment. The Company cannot, if it would,

collect for any part of the 50 feet between its main and the lot line. In addition to the cost of the services lying in the street, Exhibit D (p. 246) at page 18, lines 1753, 1756, shows the Company incurred on cost of extending services to the tenement, an average of \$8.06 per service for 1906, and \$7.82 for 1905, the sum collected from the consumer lacking that much of defraying the naked cost of labor and material. The corresponding lines of Exhibit 101 (p. 468) shows the contributions of 1905 made by consumers lacked, on each service, \$8.55 of defraying the cost incurred upon his own premises.

Cross-examined as to the basis on which he computed the cost of services, witness Malone said (p. 182) :

I averaged them at 50 feet to the service. The streets are 120 feet, 100 feet, 80 feet, and 60 feet. And I took them as the four and divided by four, 90 feet from the main in; and we took 50 of the 90 feet. That would be 50 times 2716. That would be \$13.58. This would make \$13.58, but my figures are \$13.50 per service.

Honeywell, appellant's manager, cross-examined by the City Attorney (p. 165) testified to the same subject as follows:

Q. Where you put in a service *to a house*, the way you keep your books now, you show that on your books and charge it into what account? A. We charge the *construction* with the amount we put into the service, and credit construction back with the amount the consumer pays us. All we charge construction is the amount of money we actually put in from the *main to the lot line*.

Q. And the consumer pays *from the lot line* into his house and for making the connection? A. Yes, sir.

Q. And *that* you charge back? A. Yes, sir.

The result of enquiry upon this item disclosed that appellant has a capital investment for services much beyond the item shown in Mr. Malone's schedule. The lower court on this showing justly overruled the City's contention, and allowed in full the deficient sum estimated by Malone.

The items of coal and water gas apparatus have been sufficiently presented, elsewhere, to show that they were not the subject of dispute, and that under the proofs they should have been increased in a sum to cover cost of installation of steam boiler. The item of gas meters was not controverted and the finding responds to the undisputed evidence. The only remaining items, about which there can be any controversy, that have not already been presented, are the mains and piping for gas ranges.

Touching the item of connections and piping for gas ranges, Honeywell, the Company's manager, on cross-examination (p. 166) testified:

Q. How about connections with gas ranges and so on?

A. We pipe to the new range the first time *without cost*. After that we charge the consumer for it.

Q. For what. A. For moving it or connecting it up.

Q. So you are a little more favorable to the consumer where he connects for fuel service than for light? You don't make connections for the light service without charging for it?

A. Oh, yes. He has to pay for it though.

Q. He has to pay for it though? A. Well, he don't have to pay for setting the meter. They are supposed to drop their riser down to where the meter goes in, and *we make the connection without charge*.

Q. He simply has to pay for the pipe in from the *lot line* to the place of connection? A. That is right.

Q. For the actual making of the connection, whatever that expense is, you do that without charge? A. Yes, sir.

Malone (p. 82) thus justifies his estimated value:

Q. Now, I think, in your summary you have another item, piping gas ranges—now you may explain what that item is? A. So far I have followed the pipe to the meter. Now, commencing at the meter and running from the meter to the average gas range I estimate the distance at 30 feet. The sized pipe used for this purpose is $\frac{3}{4}$ inch. Sometimes it varies whether industrial purposes or kitchen range. But we took it for the ordinary domestic range, 30 feet to each one. That cost \$3.00 each.

Q. That includes labor? A. Yes, sir.

Q. How many gas ranges has this company set? A. The first of the year their report showed 5,500 ranges.

Q. What would be the aggregate of that item? A. \$16,500.

Q. Is that work necessary to be done in order to promote the sales of gas? A. Yes, sir; and done very carefully to avoid traps and leaks. The cost of maintenance on a thing of that kind if not done right is pretty heavy.

The sum of \$16,500 mentioned by the witness was justly regarded by the lower court as a part of the replacement value of appellant's plant.

Touching the item of street mains, Malone gave the items of cost in detail on his cross-examination (printed record, pp. 180-181). For example, the items of cost in laying a 6 inch main in an unpaved street are, per lineal foot 6 inch pipe 55 cents, stringing 1 cent, lead and yarn 7 cents, hauling wood and coke, fuel used, 7 cents; total 90 cents (p. 181). This was the rate at which the replacement cost of 6 inch mains was computed. The size of excavations, and cost of removing and replacing permanent pavements in cases where the mains were covered by pavement, were all calculated in detail by a skilled engineer experienced in this special line of work. The figures were verified by those who assisted in the inspections and calculations. The court adopted these calculations and estimates as the only satisfactory proof offered, and deducted ten per cent. for depreciation.

There was a contest below over \$66,378, involved in replacement value of mains, representing the cost of opening and replacing permanent pavements. This contest was based on the following testimony given by Mr. Honeywell, on cross-examination (printed record, p. 129):

Q. In laying your mains you do not lay them in paved streets, that is, you are required to keep ahead of the paving?

A. Yes, sir. We are required to keep ahead of the paving.

Q. That is a city ordinance on that subject? A. Yes, sir.

Q. Have you ever laid any mains in paved streets at all?

A. Oh, Yes, sir. We have taken up mains in paved streets.

Q. And put them back? A. Yes, sir.

Q. But I mean originally? A. I do not recall any at the present time.

As to any mains replaced after pav^{ve}ment, the actual cost of opening and restoring the pavement was, in fact, paid. Where the pavement is laid over a main, the replacement involves, unavoidably, that item of structural cost. The contest of the City on this item presented an issue of law. Is appellant to enjoy the increased value added to its pipe lines by public improvements constructed over them? If these lines had depreciated, appellant alone would have suffered the loss. If they have appreciated, therefore, appellant is entitled to the enhancement.

The legal issue is hardly an open one, since the *Consolidated Gas Company's Case* was decided. In that case the proofs were that construction expenses of pipe lines had vastly increased by improvement of streets, "now consisting of continuous sheets of asphalt over granite." Although the mains were laid in advance of the pavement, the Circuit Court held replacement value must include the cost of relaying under the present pavements. On this subject the court below held: "If it be true that a pipe line under the New York of 1907 is worth more than was a pipe line under the City of 1827, then the owner thereof owns that value, and that such advance arose, wholly or partly, from *difficulties of duplication, created by the City itself*, it a matter of no moment." *Consolidated Gas Co. v. New York*, 157 Fed. 855.

Upon consideration of the same question on appeal in that case, this court said:

"And we concur with the court below in holding that the value of the property is to be determined as of the time when the inquiry is made regarding rates. If the property which legally enters into the consideration of the question of rates

has *increased* in value since it was acquired, the company is entitled to the benefit of such increase." (*Wilcox v. Consolidated Gas Co.*, 212 U. S. 52.)

That ruling forecloses the issue in favor of appellant, and fully justifies the valuations of street mains found by the Circuit Court. Figuring upon the basis of replacement values alone, no just revision of the lower court's findings, on a review of the evidence, can be made without largely increasing the total valuation stated in its opinion.

Naturally, a disposition was shown on the part of the City's representatives to unduly and unreasonably disparage values, and much was made of the supposed circumstances that the apparatus appropriate to the needs of a village in 1873, would be inappropriate to the demands of a city of 40,000. Such suggestions are without merit or substance, as bearing upon the maintenance of capital valuations. While the original appliances have been for the most part replaced, and for the reason stated, construction has been charged with the difference between the values of the old and new equipment, and the original capital remains still employed. Again the aggregate of the cost of mere construction up to January 1, 1886, was only \$98,720.54, and practically all capital expenditures for construction were made within twenty years prior to passage of the ordinance in contest, largely in very recent periods. (See Exhibit 129, pp. 498-579.)

The City called two witnesses on the cost of main construction, neither of whom showed any real qualification. Ed. R. Bing, an assistant to the city engineer, after detailing his experience, on cross-examination (printed record, p. 280) said:

Q. You would not think that would particularly qualify you for estimating the cost of the construction of gas works?

A. I would not think so. No sir.

Bing's cross-examination (followed by a motion to exclude his testimony) closed as follows (p. 296):

Q. Now, as a matter of fact, you would not vouch for your ability to cover every item and make a *practical* estimate here, on which the replacement could be actually done, would you? A. Well, on every item, I do not believe I would say that I could.

Q. If you had to figure now, after this cross-examination, you would, yourself, raise some items in the interest of fairness, would you not, and increase the cost? A. I believe I would figure those service pipes a little lower.

Q. A little higher, or a little lower? A. Put them down into the ground a little lower and increase the cost.

The City's other witness, J. M. Deffenbaugh, had pursued the honorable avocation of a common laborer in the City water department for twenty years, at the wages of \$1.75 per day, for the most part; had become a *tapper* at a salary of \$75 per month, and had served one term as Water Commissioner (printed record, p. 310). He confessed that he was neither an accountant nor engineer, and had no experience in either one of those avocations (p. 311), and that the largest contract he ever executed was "possibly \$1,500" (p. 312). The City evidently regarded the subject matter of this inquiry as not worth the cost of accurate and painstaking inquiry.

XI.

If capital valuations be tested by actual experience in construction, or by the purchase price paid by the present owner, the sum stated in the opinion of the lower court must be greatly increased.

The two sources mentioned are, by precedent and reason, appropriate subjects of judicial inquiry, and are both shown in evidence. The cost of gas plant *construction*, alone, to June

30, 1907, was shown to aggregate \$603,278.14. (Opinion, p. 44; Exhibit E, pp. 139, 140; Exhibit 129, pp. 498-479.) This includes nothing for working capital, found by the lower court to be \$50,000, nothing for franchise or going value, including the cost of putting the plant on a fair earning basis with over 6,000 customers, which appellant claims represents a capital investment of \$100,000, nothing for interest on money employed during construction, which is an incontestible item of not less than \$40,000, and nothing for enhancement due to paving, and found by the court to be \$66,378. If the two additional items, actually allowed below, and the incontestible item of \$40,000 for interest during construction, be added to the construction account, as stated by the Court, the capital valuations, figured on the basis of cost, will be \$759,656.14; and if the franchise and going value be included, this test will produce a capital valuation of \$859,656.14.

In May 1900, the promoters of "The Lincoln Gas & Electric Company" paid \$400,000 for the stock of "The Lincoln Gas Company." The properties were then burdened with a mortgage of \$333,000, making the total purchase price at that date \$733,000 (per Honeywell, p. 105). Allowing one-third of the total cost to be covered by the separate electric plant, this made the cost of the gas plant, alone, \$488,666. The amount subsequently expended in gas construction, as shown by Exhibit 129 (pp. 498-579) aggregates \$217,029. This increase, added to the cost in May, 1900, makes the actual cost at date of inquiry \$705,695. These valuations should not be disparaged without some reason more potent than is found in the proofs. The City's accountant, Wiggins, on examining the Company's accounts, found there had been actually paid in, in the way of capital contributions, \$709,196.50 ¹⁹¹⁰ since June, 1910. Of this sum, he discovered that at one time \$40,000 had gone to pay interest; but this was not prejudicial, since the earnings

applicable to interest were found to have gone into betterments of the plant. (Printed record, pp. 348-351.)

These contributions only cover a period of six years prior to passage of the ordinance in contest. Subjected to every admissible test, a capital valuation of upwards of \$700,000 is actually employed in giving a gas service to Lincoln, and this capital, in large part, is confiscated by the rate of \$1.00.

If the commercial value of such plants may be taken into account, there is in the record the testimony of Mr. Frueauff, that a fair valuation of the appellant's gas plant, including its organization and franchises, is One Million Dollars. (Printed record, p. 214.)

The appropriate sources of judicial inquiry to ascertain the fair value of property used for the public convenience include "the *original cost* of construction, the amount *expended* in permanent improvements, the amount and *market value* of its bonds and stocks, the *present*, as compared with the original *cost of production*, the *probable earning capacity* of the property under the particular rates prescribed by statute, and the sum required to meet operating expenses," and perhaps other matters. (*Smyth v. Ames*, 169 U. S. 546, 547.)

XII.

The validity of that part of the decree which arrests the operation of the occupation tax ordinance, so far as questioned by the City on jurisdictional grounds, should be determined on this appeal.

The bill, as shown in the statement of the case, assailed the validity of the occupation tax ordinance, on the ground that it was partial and discriminatory. No like impositions were made upon the electric business which came in direct and immediate competition. Without burdening the argument with record references, it was proved that mantel devices made gas

light equally attractive as electricity, and one equipment was as practical as the other, and that the two systems were in common practice installed in the same tenements. The ordinance operated to favor electric lighting at the expense of gas lighting. The bill asserted that this was a denial of the equal protection of the laws guaranteed by the fourteenth amendment. The purpose of the pleading was to bring the case within the rule of *Cotting v. Kansas City Stock Yards Co.*, 183 U. S. 79, 112, expressed by Mr. Justice BREWER, as follows:

"We must, nevertheless, always remember that the equal protection of the laws is guaranteed, and that such equal protection is denied when upon one of two parties engaged in the same kind of business and under the same conditions, burdens are cast which are not cast upon the other."

There was therefore a separate issue challenging the validity of the occupation tax ordinance upon the ground of its repugnance to the Constitution of the United States, which was cognizable in the Circuit Court of the United States, notwithstanding all the parties were citizens of the same state. The bill prayed, in part, as follows:

"That on the final hearing hereof the aforesaid ordinances and each of them, the one pretending to prescribe said maximum rate, and the other pretending to impose said occupation tax, be adjudged void because repugnant to the said several provisions of the Constitution of the United States, and that said injunction be made perpetual." (Printed record, p. 20.)

The lower court declined to pass upon the issue tendered, but, incidentally to determining the adequacy of the rate, decreed the tax void because repugnant to the State Constitution. The City questioned the power of the court to enter this part of the decree on the following, among other grounds (printed record, pp. 47, 48):

"1. The invalidity of the same under the laws and Constitution of Nebraska is not charged in the bill of complaint and no such issue was involved."

"4. This court is and was without jurisdiction to determine the question of the validity of such occupation tax ordinance under the Constitution and laws of the State of Nebraska, or to enjoin the enforcement of the same."

Important rights depend on the validity of that part of the decree in question, among which are: (1) The considerable sum involved in the aggregate of the impositions during the period when the ordinance would otherwise be in force; (2) the efficacy of the judgment to support a plea of former adjudication in defense of actions by the City to enforce the taxes; and (3) the amount of the taxes, if validly imposed, is an operating cost to be considered in determining the adequacy of the rate.

It seems rational to hold that the decision of this question was incidental to the inquiry into the adequacy of the rate in contest, and that the court on finding that a valid imposition of the special tax burden would render the rate inadequate, had power under the prayer for general relief, to adjudge void and arrest the operation of the occupation tax ordinance. "These taxes * * * were properly treated by the company as part of its *operating* expenses, to be paid out of its earnings before the net amount could be arrived at applicable to dividends, and if the latter sums were not sufficient to permit the proper return on the property used by the Company for the public, then the rate would be inadequate." (*Wilcox v. Consolidated Gas Co.*, 212 U. S. 51.) To ascertain the adequacy of the rate, involved a determination of whether occupation taxes of approximately \$5,000 per year were included in the operating cost. Even on the erroneous views held by the lower court on the measure of property values and rates of depreciation and returns, it was not possible to adjudge the rate adequate if the occupation taxes were to become part of the operating costs. A ruling as to its validity was, therefore, an unavoidable incident of the adjudication of the federal right in contest. That the federal court

had power to adjudicate incidental issues of a nonfederal character was ruled in *Mayor of Nashville v. Cooper*, 6 Wall. 252, wherein Mr. Justice SWAYNE said: "Nor is it any objection that questions are involved which are not all of a federal character. If one of the latter exist, if there be a single such ingredient in the mass, it is sufficient."

The appeal carries the same situation up to this court. By its own precedent, taxes are an operating expense, and if they so burden the net revenues that there are not enough left to give a fair and just return on invested capital, then, by its own declared standard, the rate must be adjudged inadequate. Is the ordinance void? Or must it be treated as an operating burden on appellant's revenues?

Again, if this part of the decree be without the issue, and not necessarily incident to the federal right in contest, then it is a mere nullity. The parties are citizens of the same state. As an independent issue the court has no cognizance of the subject matter, except as the bill presents the issue of repugnancy to the federal constitution. This court may revise the judgment and arrest the operation of the ordinance on the ground of its repugnance to the fourteenth amendment, under the rule of *Cotting v. Kansas City Stock Yards Co.*, 183 U. S. 112; or, if the judgment cannot be so rested, that part of the decree must be held void for want of jurisdiction, in every proceeding, direct or collateral, in which it comes in question. We may, without offense, for the purpose of illustration, state that a suit brought by the City of Lincoln against appellant in a state court before entry of that decree is still pending.*

*Note: Copies of the petitions in that case, and in a suit to enforce a like tax of a higher rate under a subsequent ordinance, expressly saving the rights of the city accrued under the ordinance in contest, are printed in an appendix. We claim no benefit of these circumstances, except to practically illustrate what matters are not concluded, and to show the necessity of determining whether the present decree is valid, and efficacious under a plea of former adjudication.

It is elementary that a judgment which lies without the jurisdiction of the court is a nullity and must be so held in any proceeding, direct or collateral, in which it comes in question. The City has filed a protest, based on jurisdictional grounds, against the order arresting the operation of the ordinance. When this appeal is determined, may appellant abate the pending suit by a plea of former adjudication? Or proceed by information against the City's representatives if they violate the injunction entered in the lower court? These matters in contest on this appeal ought not to be left open or in doubt.

The decision of this issue, one way or the other, can not control, as it seems to us, the holding on the adequacy of the rate. But as an independent issue, appellant asks that it be adjudicated and rightly disposed of in this court upon the issue tendered by the bill.

XIII.

Recapitulation and Conclusion.

Upon the argument presented, the following considerations should control and determine the judgment on this appeal against the validity of the rate ordinance in question:

- I. The lower court erred in approving a reduction by ordinance of appellant's revenues to a point as low, or lower than six per cent. per annum on the value of its properties employed in the public service. Funds for the prosecution of a local gas enterprise at Lincoln, Nebraska, cannot be commanded or obtained at a lower rate of interest than eight per cent. The administrative boards in that section of the country having cognizance of the subject matter of public utility rates regard an additional return of profit of from one and one-half per cent. to three per cent., over and above the ordinary rate of interest, as essential to assure the command of capital in this and like utilities to meet the public requirements for the service. In these

conditions the reduction of appellant's earnings by ordinance to a point as low or lower than six per cent. is confiscatory and repugnant to the fourteenth amendment.

2. The lower court erred in fixing a limitation of \$8,000 as the amount of the yearly operating cost of the service payable from the revenues by reason of depreciation of appellant's properties from use. That sum is much smaller than any theory presented in evidence warrants, and is arrived at by adopting the so-called "sinking fund method of financing depreciation," whereby the public appropriates the earnings accumulated at compound interest on each item of annual depreciation during the life term of the equipment. That theory is neither lawful nor compatible with the rule requiring the appraisal of the property for revenue purposes at its present value, as depreciated by age and use. Depreciation is a part of the cost of furnishing the service and is, as it accrues, a just charge against the revenues to be compensated before applying any portion of the revenues to capital earnings. The application of the sinking fund method of computing or *financing* depreciation operates as an appropriation of appellant's property to the use of the public without compensation. It forces a colorable net profit where none exists in fact, and should receive judicial condemnation. When the full item of depreciation is properly charged against the revenues as an operating expense, it will reduce the net profits applicable to return on invested capital to a wholly inadequate sum, on any reasonable basis of valuation, and definitely establish the confiscatory character of the rate in question.

3. The court clearly undervalued the capital investment of appellant. On any basis that will fairly protect the actual and necessary investment to furnish the public service, appellant's plant and properties should be appraised at a sum in excess of \$700,000. This consideration greatly emphasizes the

obvious inadequacy of the rate of one dollar per one thousand feet of gas.

4. The operation of the quality ordinance, the rate ordinance, and the occupation tax ordinance, all passed in 1906 shortly prior to exhibition of the bill, was a reduction of at least one-fourth of appellant's gross revenues. This reduction, on its face, was too radical to permit appellant's business to be accommodated thereto, in view of the incontestable showing that the previous rate was not excessive or exorbitant, and was close to the border line of confiscation. The past experience under a higher rate proved the inadequacy of the reduced rate. In such case, the practice of applying for equitable relief without first incurring the loss and damage that would accrue from placing the objectionable rate in force, is justifiable and conforms to the repeated judgments of this court.

5. No unjust impositions upon the public have resulted from over-capitalization of appellant. The system of financing by an issue of mortgage bonds, instead of by sale of stock, was in common use in 1900, when employed by appellant. The bond issue was not excessive, and was well within the cost and the actual value of appellant's properties. The interest on the bonds, which comprises the total withdrawals from the revenues by way of capital earnings since May, 1900, has not at any time unjustly burdened the service. It represents a smaller sum than fair and just earnings on the capital necessarily employed in the service.

The ultimate conclusion that the rate of one dollar prescribed by the ordinance is inadequate and confiscatory, is therefore unavoidable, upon any fair consideration of the evidence. The judgment of the lower court should, therefore,

be reversed, and the ordinances in contest should be adjudged void, and the operation thereof arrested by injunction.

JOHN F. STOUT,

HALLECK F. ROSE,

Of Counsel.

CHARLES A. FRUEAUFF,

EDMUND C. STRODE,

Counsel for Appellant.

APPENDIX.

In the District Court of Lancaster County, Nebraska.

CITY OF LINCOLN,

Plaintiff.

vs.

LINCOLN GAS & ELECTRIC LIGHT COM-
PANY, A CORPORATION,

Defendant.

Petition.

The plaintiff a municipal corporation existing under the laws of the State of Nebraska as a city of the first class having more than 40,000 and less than 100,000 population brings this action against the defendant and for cause of action alleges:

1. That defendant is a corporation organized and existing under the laws of the State of Nebraska with its principal office in the City of Lincoln, Nebraska, and is now and has been for more than five years last past engaged in the business of manufacturing and furnishing gas to the inhabitants of such city.

2. That on the 10th day of December, 1906, the mayor and council of the city of Lincoln duly passed an ordinance whereby there was levied upon all gas companies manufacturing and furnishing gas to the inhabitants of said city an occupation tax in the sum and amount of two and one-half per cent. of the gross receipts of such companies derived from the business of manufacturing and furnishing gas as aforesaid, the same to be of force and take effect January 1, 1907. The said ordinance was duly approved by the mayor on December

13, 1906, and was on the same day duly published as required by law and thereupon the same became a legal and valid ordinance and in full force and effect; that the payment of said taxes was required by the provisions of said ordinance to be made monthly, the first payment became due on February 15, 1907, and the monthly payments thereafter became due and payable on the 15th day of each and every month and in case of default in such payment it was provided that such taxes should draw interest at the rate of one per cent. per month and after six months delinquency a penalty of five per cent. was required to be added to the amount due; that said Gas Companies were further required by said ordinance to file with the city clerk of such city on the 10th day of each and every month a statement verified by the managing officer of said company, showing the gross receipts of the previous month. A copy of said ordinance is hereto attached marked exhibit "A" and made a part of this petition.

3. Plaintiff alleges that said ordinance has been in full force and effect since January 1st, 1907, that defendant has during all of said time been manufacturing and selling gas to the inhabitants of the city of Lincoln and the gross receipts derived by it therefrom have been at least the sum and amount of \$18,000 per month; that defendant has wholly failed and refused to comply with the provisions of said ordinance or any of them and has refused to make and file with the City Clerk of said city the verified statement as to its receipts derived from such business as required by the provisions of such ordinance and by reason thereof the plaintiff is unable to state the exact amount of such receipts.

Plaintiff alleges that there is now due and payable from defendant to the city of Lincoln the occupation taxes as aforesaid for the period commencing January 1st, 1907, and ending

March 31, 1908, the sum of at least \$6,750.00 on which there is interest amounting to at least the sum of \$450.00 and penalties of at least \$200.00 aggregating more than \$7,400.00 in all, all of which is due and payable from defendant to plaintiff.

Wherefore the plaintiff prays that an account be taken of the amount due it from defendant as taxes, interest and penalties under said ordinance in the sum of \$7,400.00 and for such other and further sum as may be found due on account of said taxes, interest and penalties and for such other, further and different relief as be found to be just and equitable.

JOHN M. STEWART,

Attorney for City of Lincoln.

State of Nebraska, }
County of Lancaster. } ss.

John M. Stewart, being first duly sworn deposes and says that he is the attorney for the plaintiff City of Lincoln, that he has read the foregoing petition and that the facts set forth therein are true as he verily believes.

JOHN M. STEWART.

Subscribed and sworn to before me this 26th day of May, 1908.

DANIEL H. McCLENAHAN,

Notary Public.

Seal.

Exhibit "A."

Ordinance Number 439.

An ordinance providing for the assessing an occupation tax upon all gas companies manufacturing and furnishing gas to the inhabitants of the city of Lincoln, fixing the amount

thereof, providing for the enforcement and collection thereof and providing interest and penalties for non-payment when due and payable, and designating the funds to be credited with the amount so paid.

Be it ordained by the Mayor and Council of the City of Lincoln.

Section 1. That all gas companies manufacturing and furnishing gas to the inhabitants of the City of Lincoln are hereby required to pay an occupation tax, and the amount thereof as hereinafter specified is hereby assessed against said company or companies.

Section 2. That all gas companies manufacturing and furnishing gas to the inhabitants of the City of Lincoln are hereby required to pay to the City of Lincoln as an occupation tax the sum and amount of two and one-half per cent. ($2\frac{1}{2}\%$) of the gross receipts of said company derived from its business of manufacturing and furnishing gas to the inhabitants of the City of Lincoln, payment thereof to be made as follows: beginning with January 1, 1907, said gas company or companies shall on the 15th day of each and every month thereafter pay the City of Lincoln two and one-half per cent. ($2\frac{1}{2}\%$) of the gross receipts of said company for the preceding month, as hereinabove provided, as an occupation tax, and all deferred payments shall draw interest at the rate of one per cent. (1%) per month, and after payment has been in default for six months, a penalty of five per cent. (5%) shall be added thereto in addition to the interest charge and shall be paid by said gas company or companies.

Section 3. All such gas companies on the 10th day of each month as hereinabove provided shall file with the City Clerk a full and complete detailed statement of the income and operating expenses and other charges of said gas company for the

preceding month, and said statement shall be duly verified and sworn to by the managing officer of any such gas company or companies, and the city of Lincoln shall have the right at any and all times during business hours to inspect through its officers, agents or representatives, the books and records of any such gas company or companies for the purpose of verifying such report or reports. Provided, however, that in case any such gas company or companies shall refuse, fail or neglect to furnish or file such report at the time or times specified, or shall refuse to permit the City of Lincoln through its officers, agents or representatives, to inspect the books and records of any such company for the purpose of verifying such report or reports, then and in that event the occupation tax for the preceding month shall be and hereby is fixed and determined to be the sum and amount of one thousand dollars and said amount shall draw interest at the rate of one (1%) per month after due and payable, and in addition thereto a penalty of five per cent. for failure to pay within six months.

Section 4. In case any such gas company or companies shall fail to make payment of the occupation tax as hereinbefore provided and at the time or times hereinabove specified the City of Lincoln shall have the right and may sue any such gas company or companies in any court of competent jurisdiction for the amount of the occupation tax due and payable under the terms and provisions of this ordinance and may recover therein judgment against any such gas company or companies for the amount so due, together with interest and penalties, and may have execution thereon.

Section 4½. Said occupation tax shall be paid to the City Treasurer of the City of Lincoln at the time specified in this ordinance, and he shall issue and deliver a receipt therefor, upon the payment thereof, and the amount so paid shall be

credited by the City Treasurer to the general fund of the City, unless otherwise directed by the Mayor and Council.

Section 5. All ordinances or part of ordinances in conflict herewith are hereby ~~repealed~~ ^{rescinded}.

Section 6. This ordinance shall take effect on January 1, 1907, after its passage, approval and publication according to law.

Passed, 12-10-06.

Introduced by

L. J. DUNN,
JOHN S. BISHOP,
W. C. FRAMPTON,
WM. SCHROEDER.

Attest:

THOMAS H. PRATT,
City Clerk.

Approved Dec. 13, 1906,
F. W. BROWN,
Mayor.

Endorsed: 40-38. In the District Court of Lancaster County—City of Lincoln, Plaintiff vs. Lincoln Gas & Electric Light Company, Defendant—Petition:—City' Clerk's Office District Court, Lancaster County, Nebraska, filed May 26, 1908, J. S. Baer, Clerk District Court.

CERTIFICATE.

State of Nebraska, }
Lancaster County. } ss.

I, J. S. Baer, Clerk District Court Third Judicial District of Nebraska do hereby certify that the above and foregoing is a true and correct copy of Petition with all endorsements thereon filed May 26, 1908, in a cause in said Court wherein the City

of Lincoln is plaintiff and Lincoln Gas & Electric Light Co. is defendant as the same appears fully upon the records and files of said Court and now is my charge remaining as Clerk aforesaid.

Witness my hand and seal of said Court at Lincoln this 19th day of October, A. D., 1911.

(Seal of Court.)

J. S. BAER,
Clerk D. C.
By W. C. BURCHAM,
Deputy.

Petition.

In the District Court of Lancaster County, Nebraska.

CITY OF LINCOLN,

Plaintiff,

vs.

LINCOLN GAS & ELECTRIC LIGHT
COMPANY,

Defendant.

Comes now the plaintiff, the City of Lincoln, in the above entitled case and for cause of action against the defendant, represents and shows unto the court that plaintiff is and was at all times hereinafter mentioned, a city of the first class, having more than forty thousand inhabitants and less than one hundred thousand inhabitants, and was organized and exists under and by virtue of the laws of the State of Nebraska.

Plaintiff further alleges that the defendant, The Lincoln Gas and Electric Light Company, is and was at all times hereinafter mentioned a corporation organized and existing under and by virtue of the laws of the State of Nebraska, with its principal office in the City of Lincoln, Nebraska, and that it now is, and has been at all times hereinafter mentioned engaged

in the business of selling electricity and gas to a great number of the inhabitants of the City of Lincoln and within the corporate boundaries of said City.

Plaintiff further alleges that Mayor and City Council of the City of Lincoln, duly and regularly acting, did, on or about the 13th day of December, 1909, pass an ordinance providing for the levy and collection of an occupation tax upon the business of furnishing and selling gas and electric current for lighting and other purposes, to the inhabitants of the City of Lincoln; such tax to be in sum and amount of 3% of the gross receipts derived from selling electricity and gas by such person or company engaged in such business. The ordinance further provided that such tax was to be paid monthly and was to become due on the 15th day of each and every month, and in case of default in the payment of such tax it was provided that such tax draw interest at the rate of 1% per month, and after six months delinquency a penalty of 5% required to be added to the amount due, and said ordinance further provided that the person or company engaged in the business of selling electricity and gas should on the 15th day of each and every month, file with the City Clerk, a full and complete and detailed statement of the income and gross receipts from such business of selling electricity and gas during the preceding month, such report to be duly verified and sworn to by the person in charge of such business. Said ordinance was duly approved and published and became effective according to law on January 13, 1910. A copy of said Ordinance, marked Exhibit "A" is attached hereto and made a part of this petition.

Plaintiff further alleges that said ordinance has been in full force and effect since the 13th day of January, 1910, and that the defendant during all of such time has manufactured and sold electricity and gas to the inhabitants of the City of Lincoln and within the corporate limits of said City, and plain-

tiff further says that the gross receipts from said business are in large amounts as hereinafter stated, but that said company has failed, refused and neglected to pay any occupation tax to the City of Lincoln as provided by the ordinance aforesaid.

Plaintiff further says that the defendant has wholly failed neglected and refused to make and file with the City Clerk of said City of Lincoln the verified statement or report required by the ordinance, showing the gross receipts of said defendant from its business of selling electricity and gas, as aforesaid, and that by reason thereof the plaintiff is unable to state the exact amount of such receipts.

Plaintiff further says that the said defendant the Lincoln Gas & Electric Light Company, from its business of furnishing and selling electricity and gas to the inhabitants of the City of Lincoln, has derived gross receipts in excess of the amount, it is believed by plaintiff, of \$12,000 per month; the real amount, however of such receipts is to the plaintiff unknown, and plaintiff has no means of ascertaining the same, except by an accounting in this suit; and plaintiff further says that under the terms and conditions of said ordinance the said defendant should have paid as an occupation tax to the said City of Lincoln certain sums plaintiff believes in amount to be about \$360 each month during all the period of time from the first day of February, 1910, to the 30th day of November, 1910, and plaintiff further says that the said amounts of tax for each respective month during which such receipts were derived by said defendant Company, and that all sums due and payable and unpaid draw interest at the rate of 1% per month until paid, under the terms and provisions of said ordinance.

Plaintiff further says that the taxes for the month of February, March, April and May have been due and delinquent for more than six months and draw penalties at the rate of 5% of said tax, and the plaintiff says that there is now due and

payable from the defendant the Lincoln Gas & Electric Light Company, to the plaintiff, the City of Lincoln, certain sums and interest, and penalties thereon the exact or approximate amount of which, the plaintiff does not know and is unable, except by this its suit for an accounting, to learn, but plaintiff believes that the whole amount so aggregates about \$3,900 all of which is due from the defendant to the plaintiff and no part of which has been paid.

And the plaintiff further says that the accounts and records of such receipts are all in possession of and under the control of the defendant company, and that the accounts are complicated and are made to be understood by defendant alone, and plaintiff cannot and could not, if access to said accounts were given, ascertain the amounts justly due from defendant to the plaintiff, and plaintiff has no adequate remedy at law.

Wherefore, the plaintiff prays that an account may be taken of the amount due from the defendant to the plaintiff as taxes, interest and penalties under said ordinance, and that for such sum as may be found to be due on account of said taxes, interest and penalties, the plaintiff may be awarded judgment against the defendant with costs of suit, and awarded such other, further and different relief as may be found to be just and equitable in the premises.

CITY OF LINCOLN,
By C. C. & L. A. FLANSBURG,
Its Attorneys.

State of Nebraska, }
Lancaster County. } ss.

Leonard Flansburg, being first duly sworn, on oath deposes and says that he is one of the attorneys for the plaintiff, the City of Lincoln, that he has read the above and foregoing

petition, knows the contents thereof and that the allegations therein contained are true as he verily believes.

LEONARD A. FLANSBURG,

Subscribed in my presence and sworn to before me this 28th day of March, 1911.

Seal.

J. S. BAER,

Clerk Dist. Court.

By W. C. BURCHAM,

Dep.

Exhibit "A."

Ordinance No. 732.

An Ordinance providing for the levy and collection of an occupation tax upon the business of furnishing electric current and gas for lighting and other purposes and to repeal chapter 64 and 66 of the Consolidated Ordinance of 1908.

Be it ordained by the Mayor and Council of the City of Lincoln, Nebraska.

Section 1. Every person or corporation engaged in the business of selling electricity or gas in the City of Lincoln, Nebraska, is hereby assessed and required to pay as an occupation tax a sum and amount equal to three (3) per cent. of the gross receipts arising from such business.

Section 2. Such payment shall be made on the 15th day of each month and be based and computed upon the gross receipts of such business for the preceding month and all payments shall draw interest at the rate of one per cent. per month from and after the same becomes due and after payment has been in default for six month a penalty of five per cent. shall be added thereto in addition to said interest.

Section 3. Such corporation shall on the 15th day of each month file with the City Clerk a full, complete and detailed statement of the income and gross receipts of said business for the preceding month duly verified and sworn to by the person in charge of such business, and the City of Lincoln shall have the right at any and all times during business hours through its proper officers or representatives to inspect books and records of any such corporation for the purpose of verifying such report.

Section 4. In case such corporation shall fail to make payment of said occupation tax, interest and penalties as herein provided, the City Treasurer is hereby authorized to issue distress warrant for the collection thereof and the officer to whom the same is delivered shall collect the amount of such tax by levy upon and sale of the personal property of the person or corporation owing the same, in like manner as provided by statute for the levy and sale under distress warrant issued for the collection of personal property tax. The City of Lincoln may also sue such corporation in any court of competent jurisdiction for the amount of said occupation tax and may recover therein a judgment against such corporation for the amount so due with interest and penalties and may have execution thereon.

Section 5. Said occupation tax shall be paid to the City Treasurer and he shall deliver his receipt therefor and the amount paid shall be credited to the general fund of said City.

Section 6. Chapters sixty-four and sixty-six of the General Revised and Consolidated Ordinance of the City of Lincoln of 1908 providing for the levy of an occupation tax upon the electric light and gas companies of such city are hereby repealed. Provided, however, that such repeal and enactment of this ordinance shall in no wise affect the liability for

the payment of any occupation tax, interest and penalty levied under the provisions of such ordinance so repealed and shall not in any wise affect the right of the City of Lincoln to commence or prosecute any action or proceedings for the collection of any such tax.

Section 7. This ordinance shall take effect and be in force from and after its passage, approval and publication according to law.

Endorsed:-45-155—District Court—City of Lincoln vs. Lincoln Gas & Electric Light Company—Amended Petition—Clerk's office, District Court, Lancaster County, Nebraska, Filed, Mar. 29, 1911. J. S. Baer, Clerk District Court.

Certificate.

Lancaster County. }
State of Nebraska, } ss.

I, J. S. Baer, Clerk District Court, Third Judicial District of Nebraska, within and for the County of Lancaster, do hereby certify that the above and foregoing is a true and correct copy of Amended Petition with all endorsements thereon filed Mar. 29, 1911, in a cause in said Court wherein The City of Lincoln, is plaintiff and Lincoln Gas & Electric Light Company is defendant, as the same appears fully upon the records and files of said Court, and now in my charge remaining as Clerk aforesaid.

Witness my hand and seal of said Court, at Lincoln, this 19th day of October, A. D., 1911.
(Seal of Court.)

J. S. BAER,
Clerk D. C.
By W. C. BURCHAM,
Deputy.

FILED

DEC 4 1901

JOHN P. HENNEY,

CLERK.

In The

Supreme Court of the United States

October Term 1901

No. 10

LINCOLN GAS & ELECTRIC LIGHT COMPANY

THE CITY OF LINCOLN et al.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES, DISTRICT OF NEBRASKA

BRIEF AND ARGUMENT OF COUNSEL FOR APPELLANTS

JOHN C. FORTER, COUNSELLOR AT LAW,
WILLIAM M. MURPHY,

WILLIAM F. MURPHY,

ALL OF LINCOLN,

IN THE
Supreme Court of the United States.

OCTOBER TERM, 1911.

LINCOLN GAS & ELECTRIC LIGHT COMPANY,	}	No. 83.
<i>Appellant,</i>		
v.		
THE CITY OF LINCOLN ET AL.,	}	
<i>Appellees.</i>		

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES,
DISTRICT OF NEBRASKA.

FRED C. FOSTER, *City Attorney*, and
WILLIAM M. MORNING, *Solicitors for Appellees*.

BRIEF AND ARGUMENT ON BEHALF OF
APPELLEES.

STATEMENT OF CASE.

The appellant filed its bill in the circuit court, December 27, 1906, praying for an injunction to restrain appellees, the city of Lincoln, Nebraska, Francis W. Brown, mayor, and Edmund C. Strode, city attorney, from enforcing an ordinance passed by the city council of said city reducing gas rates to \$1 per 1,000 cubic feet, allowing to gas companies the privilege of adding a penalty of 10 per

cent for non-payment six days from date of rendition of bill, and fixing a minimum charge of 25 cents per month for each service. The ordinance complained of was passed November 12, and was approved by the mayor November 19, 1906, and was to take effect December 1, 1906. The ordinance is set out in full in the bill and may be found on page 9 of the printed record. On May 13, 1907, the defendants filed their answer, challenging the jurisdiction of the court to determine or adjudicate the validity of the complainant's franchise, and joining issue with complainant as to the confiscatory character of the gas rate fixed by the ordinance complained of; and thereafter complainant filed its replication.

Upon the evidence taken by the respective parties the cause was submitted to the court.

On March 20, 1909, the court filed an opinion in said cause which is set out at page 41 of the printed record, holding that the complainant had failed to show that the ordinance fixing the new gas rate would, if put into effect, result in taking the complainant's property without due process of law, so as to violate the 14th Amendment to the Constitution of the United States, and directing defendant's solicitor to prepare a decree in harmony with the court's opinion.

On April 6, 1908, a decree was entered in said cause finding no equity in the complainant's bill, so far as the same relates to the ordinance fixing gas rates, and dismissing the bill and dissolving the restraining order theretofore granted as to that ordinance. The decree found, however, that the occupation tax ordinance referred to in the bill was in conflict with the Nebraska Constitution, and void, and granted a perpetual injunc-

tion as to the same. The decree may be found in the printed record, page 45. On the 5th day of May, 1909, the court entered an order, upon the petition of complainant, allowing an appeal to this Court, and restoring the restraining order against the enforcement of the gas rate ordinance, upon the giving by complainant of an approved bond in the sum of \$150,000, payable to the clerk of the court and his successors, for the benefit of all whom it may concern, conditioned that in the event the decree of the court theretofore entered dismissing the bill should be affirmed by this Court, the complainant will, on demand, pay to the party or parties entitled thereto all overcharges for gas which it may have exacted in violation of said gas rate ordinance, since the date when the same would have gone into effect but for said restraining order. The said bond was given and approved, and the cause is now here on appeal by the Lincoln Gas & Electric Light Company. There was no cross-appeal on the part of the city from that portion of the decree holding the occupation tax ordinance void, and that matter is not now before this Court.

BRIEF AND ARGUMENT.

I.

The fixing of rates to be charged by public service corporations is a legislative act, whether the rate is fixed by direct act of the legislature, or by a subordinate body or board exercising delegated authority.

See:

Knoxville v. Knoxville Water Co., 212 U. S. 1, 53
L. Ed. 371.

McChord v. Louisville & N. R. Co., 183 U. S. 483, 46 L. Ed. 289.

Smyth v. Ames, 169 U. S. 466, 42 L. Ed. 819.

Atlantic Coast Line v. N. C. Corp. Com., 206 U. S. 1, 51 L. Ed. 933.

Saratoga Springs v. Saratoga G. Co., 191 N. Y. 123, 83 L. R. A. 713.

The city council had express statutory authority to fix gas rates, meter rentals, and the price for electricity.

Sec. 8041, Cobbey's Ann. Stat. Nebraska, 1911.

The city council having acted under express legislative authority, and the act being legislative, and not judicial, the Court will not concern itself with the motives back of the action, nor pause to inquire whether an adequate investigation was made before acting, nor whether or not the council acted upon a fair and reasonable knowledge of the company's condition. Good faith and adequate information will be presumed, and this Court will, we think, confine its inquiry to the sole question as to whether this record presents a clear case of confiscation. We think this a fair statement of the rule as established by the most recent decisions of this Court.

Reagan v. Farmer's L. & T. Co., 154 U. S. 362-95, 38 L. Ed. 214-22.

Knoxville v. Knoxville Water Co., 212 U. S. 1, 53 L. Ed. 371.

Wilcox v. Consolidated Gas Co., 212 U. S. 19, 53 L. Ed. 382.

II.

The rate fixed by this ordinance not having been put to a practical test, but having been suspended by this injunction, the ordinance will be upheld unless the case is one leaving no just or fair doubt that the rate, if enforced, would be confiscatory.

In the recent case of *Wilcox v. Consolidated Gas Co.*, 212 U. S. 19, 53 L. Ed. 382, the attitude of this Court in such cases was clearly defined. The third section of the syllabus states the rule thus:

"The case must be a clear one before the courts should be asked to interfere by injunction with state legislation regulating gas rates, in advance of any actual experience of the practical result of such rates."

On page 51, in the body of the opinion, Mr. Justice Peckham, speaking for the Court, said:

"Of course there is always a point below which a rate could not be reduced and at the same time permit the proper return on the value of the property; but it is equally true that a reduction in rates will not always reduce the net-earnings, but, on the contrary, may increase them. The question of how much an increased consumption under a less rate will increase the earnings of complainant, if at all, at a cost not proportioned to the former cost, can be answered only by a practical test. In such a case as this, where the other data upon which the computation of the rate of return must be based, are, from the evidence, so uncertain, and where the margin between possible confiscation and valid regulation is so narrow, we can not say there is no fair or just doubt about the truth of the allegation that the rates are insufficient."

And in the case of *Knoxville v. Knoxville Water Co.*, 212 U. S. 1, 53 L. Ed. 371, the same question was gone into, and many statements of this Court in the opinion make it plain that where it is sought by injunction to suspend the enforcement of a rate in advance of an actual trial of its effect, this court will decline to interfere unless the showing is sufficiently strong to put the confiscatory character of the rate beyond any just and fair doubt. In the course of the opinion Mr. Justice Moody, on page 16, said:

"The jurisdiction which is invoked here ought, as has been said, to be exercised only in the clearest cases. If a company of this kind chooses to decline to observe an ordinance of this nature and prefers rather to go into court with the claim that the ordinance is unconstitutional, it must be prepared to show to the satisfaction of the court that the ordinance would necessarily be so confiscatory in its effect as to violate the Constitution of the United States. In *Ex parte Young*, 209 U. S. 123, 52 L. Ed. 714, the last word of caution by this Court was said (p. 166): 'Finally it is objected that the necessary result of upholding this suit in the circuit court will be to draw to the lower federal courts a great flood of litigation of this character, where one federal judge would have it in his power to enjoin proceedings by state officials to enforce the legislative acts of the state either by civil or criminal action. To this it may be answered, in the first place, that no injunction ought to be granted unless in a case reasonably free from doubt. We think such rule is and will be followed by all the judges of the federal courts.'"

And on the same page, the following from the opinion in *San Diego Land & T. Co. v. National City*, 174 U. S. 739, 43 L. Ed. 1154, was quoted with approval:

"Judicial interference should never occur unless the case presents, clearly and beyond all doubt, such a flagrant attack upon the rights of property under the guise of regulations as to compel the court to say that the rate prescribed will necessarily have the effect to deny just compensation for private property taken for the public use."

And again on page 17 of the same opinion the writer repeated with approval the following expression of this court in the case of San Diego L. & T. Co. v. Jasper, 189 U. S. 439, 47 L. Ed. 892:

"In a case like this we do not feel bound to reexamine and weigh all the evidence, although we have done so, or to proceed according to our independent opinion as to what were proper rates. It is enough if we can not say that it was impossible for a fair-minded board to come to the result which was reached."

And again, on page 17, the Court sums up the whole matter in this manner:

"We do not feel called upon to determine whether a demonstrated reduction of income to that point (4 per cent) would or would not amount to confiscation. Where the case rests, as it does here, not upon observation of the actual operation under the ordinances, but upon speculations as to its effect based upon the operations of a prior fiscal year, we will not guess whether the substantial return certain to be earned would lack something of the return, which would save the effect of the ordinance from confiscation. It is enough that the whole case leaves us in grave doubt."

In other words, it is, and ought to be the settled policy of this Court to discourage, as far as possible, the practice on the part of public service corporations of

rushing into the federal courts, and attempting to suspend rate regulations without first giving the rate a practical test, thereby eliminating speculation and prophecy based upon opinion evidence, rather than facts gleaned from actual trial and experience, and to refuse to interfere by injunction, except in those cases where there is no just or fair doubt of the confiscatory character of the rate complained of.

We assume, therefore, that in order for appellant, in this case, to prevail in this Court, it is incumbent upon it to satisfy the Court that this record discloses a case in which it is clearly apparent that the rate complained of is not compensatory, and that there is no "just or fair doubt" of the confiscatory character of such rate. We will therefore proceed to examine the case made by the complainant, and will endeavor to satisfy the Court that this record not only fails to make it apparent that this rate would invade the appellant's constitutional rights, but shows a state of facts from which it may be fairly predicted that it would, under proper management, prove highly remunerative if given a fair and reasonable trial.

III.

1. Does this record present a case which leaves no doubt of the confiscatory character of the rate complained of?

In an investigation of the legality of maximum rates fixed by law, to be charged by public service corporations, two principal questions are to be considered:

1. The present reasonable value of the property or plant devoted by the corporation to the public service.

2. The net earnings of the corporation which would probably arise from the operation of its business under the new rate, after deducting necessary and reasonable charges and expenses.

"What the company is entitled to ask is a fair return upon the value of that which it employs for the public convenience. On the other hand, what the public is entitled to demand is that no more be exacted from it for the use of a public highway than the services rendered by it are reasonably worth."

Smyth v. Ames, 169 U. S. 466, 42 L. Ed. 819.

"What the company is entitled to demand, in order that it may have just compensation, is a fair return upon the reasonable value of the property at the time it is being used for the public. The property may have cost more than it ought to have cost, and its outstanding bonds for money borrowed and which went into the plant may be in excess of the real value of the property. So that it can not be said that the amount of such bonds should in every case control the question of rates, although it may be an element in the inquiry as to what is, all the circumstances considered, just, both to the company and to the public."

San Diego Land & Town Co. v. National City,
174 U. S. 739, 43 L. Ed. 1154.

In the opinion of the above cited case, handed down by the lower court, 74 Fed., on pp. 87, 88, the court said:

"Nor can it make any difference that the complainant in the construction of its plant and the carrying on of its work borrowed \$300,000, on which it pays interest and for which, it may be, it issued its bonds. The buyer of such bonds, like the

loaner of money on mortgages on real estate, does so with his eyes open. The loaner of money on a mortgage knows that conditions may be such as to increase the value of his security, or they may be such as to decrease its value. He takes the chances that everybody must take who engages in business transactions. The buyer of bonds issued by a water company, such as the complainant, has the like knowledge and the further knowledge that the law, which every one is presumed to know, prescribes that the rates to be charged for the water furnished by the company, shall be established and fixed by a special tribunal."

In *Smyth v. Ames*, *supra*, Mr. Justice Harlan, relative to the same subject says:

"If a railroad corporation has bonded its property for an amount exceeding its fair value, or if its capitalization is largely fictitious, it may not impose upon the public the burden of such increased rates as may be required for the purpose of realizing profits upon such excessive valuation or fictitious capitalization."

In *Re Grain Shippers v. Railroad Co.*, 8 I. C. C. Rep. 158, it is said:

"Whatever of wastefulness or mismanagement there may have been in the construction or antecedent history of the railroad, whatever of jobbery or of thievery even, it is apt to find its way into the capital account, until it is eliminated by some process of reorganization, and in the reorganization itself the capitalization has no relation ordinarily to the actual value of the property, but it is made to depend upon the convenience or even the whim of those who manipulate the reorganization scheme. To make the capital account of our railroads the measure of their legitimate earnings, or a rule, would place the corporation which

has been honestly managed from the outset under enormous disadvantages."

In *Steenerson v. Great Northern Ry. Co.*, 69 Minn. 353, 72 N. W. 715, it is said:

"Counsel for the railway company dwell much upon the original cost of the older portions of these lines of road. If a railroad built thirty years ago at a cost of \$40,000 a mile, and another one equally as good was built within a year through the same territory at a cost of \$12,000 per mile, on what principle should it be held that the old road is entitled to three and one-third times as much income as the new road? No guaranty was ever given by the state to the old road that the price of materials and the cost of construction would not decline, or that capital invested in railroads should not be subject to like vicissitudes as capital invested in other enterprises. Modern improvements and other causes have continued to reduce the cost of construction of all kinds of new plants, and to reduce the value of old plants, or render them wholly worthless, and the state did not guarantee that those causes should not in like manner affect the capital invested in railroads. Then the material question is not what the railroad cost originally, but what it would now cost to reproduce it."

See also

San Diego L. & T. Co. v. Jasper, 189 U. S. 439, (442), 47 L. Ed. 892 (894).

Danville v. Southern Ry. Co., 8 I. C. C. Rep. 409.

Redlands, etc., Co. v. Redlands, 121 Cal. 365.

American Asphalt Assn. v. Uintah Ry. Co., 13 I. C. C. Rep. 207.

2. What is the present reasonable value of appellant's property devoted to the public service in the operation of its gas business?

(A) DISCUSSED FROM THE STANDPOINT OF EXPERT
TESTIMONY.

A statement of the replacement cost of complainant's gas plant according to appellant's contention was put in evidence as "Ex. 1" and may be found set out in the printed record beginning on page 236. We set out here the recapitulation which appears on page 236 of the printed record, and will use the same as the basis of our discussion of the replacement value of the plant, referring the court to pages 236 to 239, inclusive, of the printed record, for the items included by the company in the several general classes of property making up the value of the entire plant.

Recapitulation.

(Page 236, Printed Record.)

Cost of Replacing Gas Plant at Lincoln, Nebraska.

(a) Coal gas apparatus.....	\$ 80,605 00
(b) Water gas apparatus.....	31,503 00
(c) Cost of buildings.....	37,286 00
(d) Real estate.....	7,200 00
(e) Street mains in dirt streets, including permits	90,578 00
(f) Street mains in paved streets, including permits	130,027 00
(g) Gas services, including re- paving and permits.....	107,106 82
(h) Gas meters in use.....	36,282 90
(i) Meter connections.....	13,184 00
(j) Piping for gas ranges.....	16,500 00
	<hr/>
	\$550,272 72

(k) Engineering cost on above, 2½ per cent	13,756 82
	<hr/>
	\$564,029 54
(l) Contingent expense on \$543,- 272.26, not including real estate or engineering cost at 2½ per cent.....	67,884 09
	<hr/>
	\$631,913 63
(m) Working capital	59,146 88
	<hr/>
	\$691,060 51
(n) Cost of organizing company	24,950 00
(o) Interest on \$631,913.63 dur- ing erection (1 year)....	31,550 00
	<hr/>
	\$747,560 51
(p) Cost of obtaining money, 20 per cent	149,512 10
	<hr/>
	\$897,072 61
(q) Interest on \$149,512.10 at 5 per cent	7,500 00
	<hr/>
Value of franchise..	\$904,572 61

In setting out the foregoing recapitulation, the small letters in parentheses are our own and are assigned to each of said items for the purpose of identification in the subsequent discussion. We will now take up and discuss each of said items separately, assuming in our discussion that the court will follow the doctrine announced in *Knoxville v. Knoxville Water Co.*, *supra*, and will reexamine and draw its own conclusions as to the facts, untrammelled by the findings of the lower court thereon:

(a) COAL GAS APPARATUS.

The trial court accepted the testimony of appellant's witnesses on the replacement value of coal gas apparatus,

viz., \$80,605. (See Opinion, p. 42, M. E. Malone, pp. 75, 76, P. R.) Appellees desire this Court to review that evidence and the testimony as to the age of this machinery. The appellant's witnesses classified the elements making up this item of \$80,605 under twenty-one heads, and took as the basis of reproduction cost of same the value of new and modern machinery. (See p. 179, M. E. Malone, P. R.):

Q. You didn't take the cost to the company?

A. It was based on what it would cost the company at Lincoln.

Q. But not what it did cost them?

A. Oh, no.

Q. Did you put the valuation of new apparatus?

A. In every case; yes, sir.

Q. And up-to-date?

A. Yes, sir, up-to-date and modern.

The same witness (p. 76, P. R.) used this basis to ascertain the value, in 1907 and 1908, of equipment under twelve of the heads mentioned, purchased in 1890 or 1891, making up part of this \$80,605, in detail as follows (Homer Honeywell, pp. 161-63, P. R.):

1 Root's exhauster and engine.	\$ 1,475 00
1 No. 3 P. and A. tar extractor and connections	755 00
1 rotary scrubber	2,650 00
1 coal gas meter, 5 x 5.....	1,050 00
1 set water-cooled condensers.	550 00
132 ft. foul main	260 00
3 purifying boxes, etc.	13,220 00
1 10 x 10 station meter (except drum)	2,250 00

1 205,000 cu. ft. gas holder, 2-	
lift	18,000 00
1 brick tank for same	6,300 00
1 20 in. Connolly St. main Gov.	1,100 00
1 storage tank for tar	350 00
	<hr/>
Total	\$57,960 00

Appellee's witness, Bemis, says (p. 358, P. R.), that the average life of this class of apparatus is twenty years. Appellant's expert witness, Malone, puts the average depreciation upon all gas manufacturing machinery at 5 per cent per annum (p. 199, P. R.), implying a life of twenty years. No reconstruction fund having been set aside to meet this item of depreciation (Honeywell, p. 163, also Vice-President Frueauff, 232), the depreciation is then unprotected by a sinking fund to offset it, and must be ~~deducted~~ reduced in order to find the present value of this property. This apparatus was installed in 1890-1, and three-fourths of its life had expired at the time of the hearing. Since three-fourths of the life of this item was lost by depreciation, we contend that there should be a deduction of 75 per cent, instead of 10 per cent, and, deducting 75 per cent, or \$43,479, from the above valuation of \$57,960, this item is reduced to \$14,490. The remaining equipment, valued at \$22,645, going to make up this item of coal gas apparatus of \$80,605, is shown by the same witnesses to have been installed from eighteen months to four and five years, prior to the hearing, and for that reason the trial court's reduction of 10 per cent for depreciation would be a proper reduction on that much of the item. This would make the proper valuation of the replacement cost of the item:

Coal gas apparatus.....\$34,870 50

(b) WATER GAS APPARATUS.

The water gas apparatus was classified under sixteen heads by appellant's witness (M. E. Malone, p. 77, P. R.). One of these, the last, a 150-horse-power boiler and stack, \$2,225, was eliminated by the trial court for the reason that it was estimated only and never installed (Honeywell, p. 164, P. R.). The court accepted the valuation of the appellant's witnesses on all other heads making up this item, totaling \$29,278 (M. E. Malone, p. 77, P. R.). These figures were obtained in the same manner as the valuation on coal gas apparatus (M. E. Malone, p. 179, P. R.), viz., the actual cost to the company of new, modern apparatus in Lincoln in 1907-8, as the replacement cost of the company's plant. No evidence was offered on this point by the city. The same rate of reduction, viz., 10 per cent, was made by the court on this item for depreciation.

The following water gas apparatus listed in detail was installed in 1890-91 (M. E. Malone, p. 77, and H. Honeywell, pp. 163-64, P. R.), i.e.:

1 6 in. Springer water gas set...	\$ 6,720 00
1 50 M. cu. ft. relief holder.....	6,500 00
Brick tank for same.....	2,875 00
Foul main, machine to holder..	720 00
1 10 M. gal. oil tank }	700 00
1 12½ M. gal. oil tank }	
Total:.....	<hr/> \$17,515 00

This class of equipment has an average life of twenty years (Bemis, p. 358, P. R.). The amount of depreciation to be charged off annually on all gas machinery should be 5 per cent (M. E. Malone, p. 199, P. R.). The

opinions of the witnesses on both sides agree on this proposition.

Therefore, in fixing the replacement value of the above apparatus, listed in detail, and installed in 1890-91, and valued at \$17,515, in the item of "Water Gas Apparatus, \$29,278.00," by the court, the amount should have been reduced 75 per cent, or \$13,136.25, which cuts that portion of the item above itemized to \$4,378.75, instead of \$17,515. The remaining water gas apparatus was purchased and installed all the way from a few months to three or four years preceding the hearing in 1907-8, and was, therefore, properly reduced in value by the trial court to the extent of 10 per cent for depreciation. The proper replacement cost of this item of "Water Gas Apparatus" should be \$14,965.45.

(c) BUILDINGS.

The trial court's valuation of the buildings we think is fair to both the city and the company, and should stand. The evidence offered by the company was solely that of M. E. Malone, a man not qualified to testify on this item at all. The city produced the only person qualified to deal intelligently with this item, and counsel for the company, from his own personal knowledge, admitted the competency of the witness (p. 324, P. R.). The court took this witness's valuations, \$24,643.

(d) REAL ESTATE.

The part of the company's real estate apportioned to the gas department is 8 of the 12 lots in the block where the plant stands, and the witnesses varied in their opinions of the value thereof from \$250 to \$900 per lot. The

only witness above \$700 for the corner lots was the company's expert, Malone, a resident of Denver, who came from there to Lincoln to testify in this case. Witness Holm, a resident real estate dealer, placed the value at \$700 for corner lots and \$600 for inside lots (p. 468, P. R.). Three other witnesses, all long-time residents of Lincoln, owners of real estate, all with a good business knowledge of property and conditions, and in some instances residing and owning property close to the company's plant, valued these lots at \$250 for inside lots and \$350 to \$400 for corner lots. So we say the valuation placed on this item by the trial court was \$1,600 too high, because the block has four corner lots at \$400 each, and eight inside lots at \$250 each, or a total of \$3,600 for the block, two-thirds of which is \$2,400.

(e) MAINS IN DIRT STREETS.

(f) MAINS IN PAVED STREETS.

The trial court in his opinion (p. 42, P. R.) accepts the figures of the company's expert, M. E. Malone, upon the value of mains in dirt streets, viz., \$90,578 (p. 78, P. R.); also the value placed by the same witness upon all mains in paved streets, viz., \$130,027 (pp. 42, 79, P. R.), making a total under the item of mains of \$220,605 (p. 75, P. R.), which would be correct if we made no attack on the integrity of Mr. Malone's estimates.,

However, we desire to call this Court's attention to a comparison of the testimony of the company's expert, Malone, on the detailed cost of replacement of street mains, with the actual detailed cost in 1906 and 1907, as shown by the company's own books:

<i>Actual Cost.</i>	<i>Malone's Estimate.</i>
2-inch main per foot :	2-inch main per foot :
Material .099 cts.	Material .13 cts.
Labor .. .094 cts.	Labor .. .12 cts.
<hr/>	<hr/>
Total. .193 cts.	Total. .25 cts.
4-inch main per foot :	4-inch main per foot :
Material .326 cts.	Material .— cts.
Labor .. .186 cts.	Labor . .— cts.
<hr/>	<hr/>
Total. .512 cts.	Total. .595 cts.
6-inch main per foot :	6-inch main per foot :
Material .478 cts.	Material .55 cts.
Labor .. .204 cts.	Labor .. .35 cts.
<hr/>	<hr/>
Total. .682 cts.	Total. .90 cts.
(Ex. C, p. 17, line 1726.)	(p. 180, P. R.)

The company's books show nothing constructed in 1907 besides 2-inch mains (Ex. 101, p. 17, line 1726), which cost for material .111 cents per foot and for labor .101 cents per foot, or a total of .212 cents per foot.

These actual figures from the company's books show that Malone was too high by 20 per cent on 2-inch mains, 13 per cent on 4-inch mains, and 24 per cent on 6-inch mains. A like per cent would show up in the larger sizes, but there were none laid by the company during the years in question. However, these figures of actual cost, when compared with the estimates made by the city's witness, Deffenbaugh, are as follows:

<i>Actual Cost.</i>	<i>Deffenbaugh's Estimate.</i>
2-inch main per foot :	2-inch main per foot :
Total cost. .193 cts.	Total cost. . .21 cts.
4-inch main per foot :	4-inch main per foot :
Total cost. .512 cts.	Total cost. . .52 cts.
6-inch main per foot :	6-inch main per foot :
Total cost. .682 cts.	Total cost. . .80 cts.
(Ex. C, p. 17, line 1726.)	(Ex. 106 and p. 299, P. R.)

Compare the estimate made by Deffenbaugh on 2-inch mains with the cost as shown by the company's books for 1907, and they substantially coincide. This would warrant taking the figures of Deffenbaugh on this item instead of Malone's figures, the former's figures corresponding substantially with the actual prices paid by the company during the previous year.

Here it would be well to compare the estimates given on the price of cast iron pipes by the company's witness, Malone, of \$30 per ton (pp. 185-86, P. R.), and the company's witness, Frueauff, of \$39.85 per ton (p. 453, P. R.), for both of these witnesses had access to the company's books and correspondence, so that there was no honest excuse for such variance. The city's witnesses based their estimates of these values upon quotations from certain trade journals introduced in evidence (Ex. 107), and prices ascertained from local dealers, and which are verified by the company's books for the previous year showing the actual cost of materials above set out.

Therefore, we claim that Deffenbaugh's figures, as set out in exhibit 106, are correct for the replacement cost of the various sizes of mains.

We now take Mr. Malone's estimate of the value of

all mains under paved streets, \$130,027, and deduct the item of paving \$36,050.41 (Ex. 106), and have \$93,976.59, which, added to his \$90,578, for mains under dirt streets, gives a total of \$184,554.59, as compared with Mr. Deffenbaugh's estimate of \$130,777.02 (Ex. 106) for the same item (when mistakes in calculation are corrected as explained below), which shows Malone's figures excessive to the extent of over 41 per cent.

The item of \$142,886.54 (Ex. 106), as computed by Deffenbaugh, is erroneous by reason of certain errors in computation of the number of lineal feet of 4-inch, 8-inch, and 10-inch mains, he basing his figures upon the number of miles of these mains as given by Malone in his recapitulation upon page 240, of the printed record. When these errors are rectified, the correct amount of Deffenbaugh's estimate of this item is \$130,777.02.

We now take up the matter of depreciation upon this item. We find we have \$130,777.02 as the replacement cost of all mains, to which we add \$31,258.94, the cost of opening and relaying paving over the mains (after correcting error as to number of lineal feet above mentioned), making, all told, \$162,035.96.

Upon examining the inventory of mains we find in all 62 miles (p. 75, P. R.) of which 39.244 miles, or 65 per cent, are 2-inch. Professor Bemis says that "this percentage of 2-inch mains is a great deal too large," and bases his testimony upon the experience of over sixty Massachusetts companies (p. 368, P. R.). He says that four-fifths of their value is gone because of age and inadequacy. His conclusion is supported by the testimony of Vice-President Frueauff, who says, "In a growing town like Lincoln I believe you must figure that our plant from

inadequacy has got to be practically rebuilt and enlarged in not to exceed fifteen years from the time it was put in; a good part of the mains will not last to exceed fifteen years" (p. 218, P. R.).

Again, Freuauff says only a few small lines of mains have been replaced (p. 232, P. R.).

The fact that the company uses such excessively high pressure, in fact practically double the maximum pressure permitted by other companies (pp. 405-6-7, and 422, P. R.), in delivering its product through its mains, demonstrates the inadequacy of these mains (pp. 360-1-2, P. R.).

Of 2-inch mains the company has 207,208 feet, worth \$43,413.68 to replace new (Ex. 106), together with 8.458 miles of paving to take up and replace, figured at \$15,231.55 (Ex. 106, for prices per foot, and p. 240, printed record, for total length of each kind of paving), making a total of \$58,645.23 to be subjected to a reduction of 80 per cent on account of age and inadequacy which places its real value at \$11,729.04.

The remaining part of this item, consisting of all mains over 2 inches, amounts to \$87,363.34 (Ex. 106), together with \$17,090.94 for opening and closing the paving over same, aggregating \$104,454.28. Here we must take up the evidence as to depreciation upon this part of the mains.

The company in its attempt to justify a large deduction from annual earnings on account of providing a depreciation fund, endeavors to show that the life of wrought iron gas mains is from eight to ten years (p.

194, P. R.), and cast iron mains from sixteen to twenty-five years (p. 194, P. R.). The inference would naturally be that the gas mains in Lincoln are of a very doubtful value; that they are likely to give way at any time and the company have to put in new. Professor Bemis says that the average life of gas mains is fifty to seventy-five years, unless they become useless on account of inadequacy or electrolysis. The latter element is a negligible quantity in Lincoln according to the evidence. The evidence shows that the first mains were laid in Lincoln in 1872. Some of these were wooden and have been displaced by iron mains. For the fact that very few iron mains have been replaced, we have the word of Vice-President Frueauff (p. 231, P. R.). The depreciation to be figured against this part of the company's plant should be based upon the usual wear and tear in ordinary usage. This, under the circumstances as shown by the evidence, can safely be assumed to be about 50 per cent. We say "assumed" because there is no specific evidence as to the time any mains were laid except the first, the assumptions being that the growth of the company has been a normal one, which is justified by the evidence of sales of gas in recent years, and that the construction of the distributing system grew apace with the sales, and no faster; if much faster they would be older. We, therefore, claim a reduction of 50 per cent, or 40 per cent more than the trial court's figures, on account of depreciation, on the above valuation of \$104,454.28, making the actual value \$52,227.14, or a total for all mains, including paving, \$63,956.18.

(g) GAS SERVICE PIPES.

(1) *Under Dirt Streets.*

The trial court accepts in his opinion (p. 42, P. R.) the evidence of the company's expert, M. E. Malone, upon the value of gas service pipes, viz., \$107,106.82 (p. 81, P. R.). The company's books show a different condition (p. 367, P. R.). Professor Bemis shows that, instead of gas service pipes costing 26 $\frac{2}{3}$ cents per running foot under dirt streets, making the cost of the average service pipe of fifty feet in length \$13.50, as shown by Expert Malone, the real cost, in 1905, averaged \$12.06 per service, in 1907 \$8.55 per service, and in 1906 \$8.27 per service (p. 367, P. R.). The testimony shows that iron pipe was cheaper at the time of the hearing than at any time for several years (p. 367, P. R.). Labor ranged from \$1.50 to \$2.25 per day during the preceding ten years. At the time of the hearing, common labor was worth \$1.75 per day of eight hours (p. 297, P. R.), cheaper than the year previous by 25 cents per day. The city's witness, Bing, places the average cost per service at \$9 (p. 289, P. R.), which, compared with the amounts charged up by the company in 1906 and 1907, \$8.27 and \$8.55, respectively (p. 367, P. R.), demonstrates whose figures are correct. The 1905 figures of \$12.06 per service, resulted from a failure to require consumers to pay for pipes inside of lot line, as is usually done by the company (p. 367, P. R.). The 3,597 services under dirt streets, at \$9 per service, amount to \$32,373, instead of \$48,559.50, which authorizes a reduction on that item as found by the court of \$16,186.50.

The item, we contend, is subject to a 30 per cent reduction on account of depreciation. The company, as has been said before, commenced business in 1872. The

average age of these pipes would be about 15 years since their installation, on a very conservative estimate. Assuming an average age of these pipes of 15 years, and taking fifty years as the length of time they may be expected to last from the time of their installation (and this is more fair to the company in this connection than the shorter probable life claimed by the company's witnesses), it follows that these service pipes have deteriorated, from age, 30 per cent instead of 10 per cent allowed by the court. Taking from \$32,373, the 30 per cent, or \$9,711.90, the present value of this item is \$22,661.10.

(2) *Under Paved Streets.*

The 2,000 service pipes (p. 81, P. R.) which M. E. Malone figures at \$13.50, exclusive of opening and closing pavement, and which, thus figured, produced an aggregate of \$58,542.32, should be reduced by \$4.50 per service, because the evidence shows that these services, in Lincoln, would not cost more than \$9 each (p. 289, P. R.). This would reduce this item by \$9,000, leaving a balance of \$49,542.32, which balance should be subjected to a reduction of 30 per cent for depreciation, the same as the service pipes under dirt streets as heretofore shown. Deducting 30 per cent, or \$14,862.69, from \$49,542.32, leaves the correct estimate of the present value of service pipes under all kinds of pavement \$34,679.63. Adding to this the service pipes under dirt streets, as heretofore figured at \$22,661.10, makes a total of \$57,340.73.

(h) GAS METERS.

We can not find much in the record bearing upon the item of gas meters, except the replacement valuation of \$36,282 made by the company's expert, Malone (p. 82,

P. R.), which was accepted by the trial court (p. 42, P. R.), and reduced 10 per cent by him on account of depreciation. There is no place in the record showing any mention of the average life of gas meters except that Professor Bemis, by including them in general terms in all other property, not included specifically in the various terms of life, ascribes to them an average life of twenty years (p. 365, P. R.). This same expert, Malone, says (p. 199, P. R.) that there has been no change in the kind of meters in use in the last ten or twenty years; that the type is the one invented fifty years ago, except that the material is a little heavier. Line 1321, sheet 13, Ex. C, inserted at page 244, printed record, shows 50 meters purchased during the year 1906. Line 1321, sheet 13, Ex. 101 (p. 470, P. R.), shows 350 meters purchased by the company in 1907, after the ordinance involved was passed, which, taken altogether, with the total number of meters in use 6,282 (p. 82, P. R.), and the number of consumers gained in 1906, viz., 562 (line 932, p. 9, Ex. C), and in 1907 a gain of 362 (line 932, p. 9, Ex. 101), gives some light on the subject.

Since this evidence shows but a relatively small number of new meters added during the two years referred to, it is safe to assume that a large proportion of the total number had been on hand for many years. Certainly it will be considered conservative to assume that the average age of all meters on hand was five years. If we deduct 5 per cent per annum for depreciation (and that is the lowest figure given by any of the witnesses), this would make the proper discount for depreciation 25 per cent instead of 10 per cent as allowed by the court, which would leave the correct present value of this item \$27,212.18.

(i, j) METER CONNECTIONS AND PIPING FOR GAS RANGES.

As these two items are quite similar in character and are open to the same general criticism, we will discuss them together.

These two items are treated by complainant as a part of its investment, or tangible property, upon which it is entitled to a return in net earnings. This was also the view taken by the trial court. (See Malone, pp. 75, 81, 82; Honeywell, p. 166, P. R.; opinion of Judge W. H. Munger, p. 42, P. R.; also recapitulation in Ex. 1, p. 236, P. R.)

We make two points against thus treating these items:

1. Since these were paid for out of gross earnings and charged to operating expense, they can not be treated as a part of the tangible property upon which dividends are to be allowed.

2. Even if they should be so treated, the present value of both items as allowed by the court is greatly excessive.

First.

It is the duty of a public service corporation to provide a reconstruction fund to take care of new construction and all permanent improvements, and these should not be charged to operating expenses.

Ill. Cent. R. Co. v. Interstate Commerce Com.,
206 U. S. 441, 51 L. Ed. 1128.

Wyman Pub. Service Corp., sec. 1163.

Where items of this character have been paid for from current receipts and charged to operating expense, they should be excluded from consideration in estimating the value of the property upon which the company is entitled to earn dividends, or excluded from the operating expenses of a single year.

San Diego Water Co. v. San Diego, 118 Cal. 556 (574), 62 A. S. R. 261 (275).

Ill. Cent. R. Co. v. Interstate Commerce Com., 206 U. S. 441, 51 L. Ed. 1128.

As to the matter of meter connections, these are paid for by the consumers and do not represent an outlay by the company at all. It is charged to operating expenses in the first instance and then collected from the consumer (Honeywell, p. 166), and under no view of the matter can this item be included for any amount.

In the matter of piping for gas ranges, the testimony of the company's expert Malone (p. 75, P. R.) and Manager Honeywell (p. 166, P. R.) was taken by the trial court in placing the valuation of \$16,500 (p. 42, P. R.) upon this item. By reference to line 1507, analyses A to G, page 15, of exhibits C, D, and 101, respectively, this item will be seen to have been treated as part of the cost of getting new business, and charged to operating expense. It is therefore not a proper item to include in construction account. It will be seen that under line 1536 in all the analyses above mentioned, the customer pays ^{a part of} this expense. We submit that if it had in fact been paid for by the company, then it should be charged to construction account and not to operating expense, and as such taken out of the proceeds of the business of a single year, and then charged to construction; and if

charged to operating expense and taken from current gross receipts, the item, thus treated, can not be included as a part of the tangible property upon which the company is entitled to dividends.

Second.

But even if these two items are to be allowed, the amount found by the court is greatly excessive. The trial court refused to take the valuation on meter connections as fixed by expert Malone, who estimated them at \$2.25 each (p. 81, P. R.), but took the figure given by Manager Honeywell of \$1 each (p. 165, P. R.), and found the value of meter connection to be \$6,304, and included this item in those which were subjected to a discount of 10 per cent for depreciation (opinion, p. 42, P. R.).

Assuming that the average age of these meter connections is five years, as we have done in relation to gas service pipes (and this is more than fair to complainant), and deducting for depreciation at 5 per cent per annum, or 25 per cent in all, this item of gas meter connections would be reduced to \$4,728. And, with the same assumption and percentage of depreciation upon the item "piping for gas ranges," that item would be reduced to \$12,375.

(k) ENGINEERING EXPENSE.

Complainant included in its "Recapitulation" (p. 236, P. R.) an item of \$13,756.82, being $2\frac{1}{2}$ per cent on \$550,272.72, as engineering cost. This was reduced by the court to \$12,417.04, the difference being due to the reduction by the court in the item upon which the percentage was figured. We make no criticism of the per-

centage, but the items affected by engineering cost, as we claim they should be, are as follows:

Coal gas apparatus.....	\$ 34,870 50
Water gas apparatus.....	14,965 45
Mains in dirt streets {	63,956 18
Mains in paved streets {	
Gas service pipes, etc.	57,344 23
Total	\$171,136.36

Two and one-half per cent upon the above amount is \$4,278.40, the correct amount which should be allowed for engineering purposes. It will be observed that we have eliminated the buildings, real estate, meters, meter connections, and piping for gas ranges, as not being proper items upon which to figure engineering expense.

DEPRECIATION.

In Knoxville Water Co. v. Knoxville, *supra*, this Court said:

"The cost of reproduction is one way of ascertaining the present value of a plant like that of a water company, but that test would lead to obviously incorrect results if the cost of reproduction is not diminished by the depreciation which has come from age and use."

And again, pages 13 and 14:

"To arrive at the present value of the plant, large deductions were made on account of the depreciation. This depreciation was divided into complete depreciation and incomplete depreciation. The complete depreciation represented that part of the original plant which, through destruction or obsolescence, had actually perished as useful property. The incomplete depreciation represented the impairment

in value of the parts of the plant which remained in existence and were continued in use. It was urgently contended that, in fixing upon the value of the plant upon which the company was entitled to earn a reasonable return, the amounts of complete and incomplete depreciation should be added to the present value of the surviving parts. The court refused to approve this method, and we think properly refused. A water plant, with all its additions, begins to depreciate in value from the moment of its use. Before coming to the question of profit at all the company is entitled to earn a sufficient sum annually to provide not only for current repairs, but for making good the depreciation and replacing the parts of the property when they come to the end of their life. The company is not bound to see its property gradually waste, without making provision out of earnings for its replacement. It is entitled to see that from earnings the value of the property invested is kept unimpaired, so that, at the end of any given term of years, the original investment remains as it was at the beginning. It is not only the right of the company to make such a provision, but it is its duty to its bond and stockholders, and, in the case of a public service corporation, at least, it is its plain duty to the public. If a different course were pursued the only method of providing for replacement of property which has ceased to be useful would be the investment of new capital and the issue of new bonds or stocks. This course would lead to a constantly increasing variance between present value and bond and stock capitalization,—a tendency which would inevitably lead to disaster either to the stockholders or to the public, or both. *If, however, a company fails to perform this plain duty and to exact sufficient returns to keep the investment unimpaired, whether this is the result of unwarranted dividends upon over-issues of securities, or of omissions to exact proper prices for the output, the fault is its own. When, therefore, a public regulation of its prices comes under question, the true value of the property*

then employed for the purpose of earning a return can not be enhanced by a consideration of the errors in management which have been committed in the past."

No part of a depreciation fund, accumulated by a public service corporation from its receipts, can be added to the capital upon which it is entitled to earn dividends, and where this has been done the burden is on the company to show to what extent it has been done, in order that it may be segregated in a rate investigation. In support of this proposition we quote the following from the syllabus in the case of Railroad Commission of La. v. Cumberland T. & T. Co., 212 U. S. 414, 53 L. Ed. 577:

"No part of the depreciation fund accumulated by a telephone company from its receipts can be added to the capital, upon which the company is entitled to a fair return from rates established by a state commission."

We now take up the matter of depreciation, first, as it affects the present value of the plant, and, second, as it relates to the necessity of a depreciation, or reconstruction reserve fund to replace the plant when worn out, has become inadequate, or obsolete.

First—As affecting the present value of the plant.

That there is a depreciation going on constantly in a plant of this kind, which can not be taken care of nor prevented by ordinary repairs, is admitted by all of the witnesses. To show what that depreciation is from the standpoint of complainants' witnesses, as well as to show that such repairs as complainant has been accustomed to make out of its revenues and charging to operating expense can not and have not taken care of this depreciation, we quote at length from complainants' witnesses:

Vice-President Frueauff (pp. 231-32, P. R.) :

- Q. This matter of depreciation, you say it is desirable for a company to have a fund to take care of the replacement of the plant when a time comes when it practically all goes to pieces and has to be replaced. Is that your idea of depreciation?
- A. Yes, sir, by laying away something to take care of the day when they have to rebuild the plant.
- Q. This company has never adopted that policy, has it?
- A. Not in a definite way, but, on the other hand, such funds as they had in excess of paying interest on their outstanding securities has been reinvested in the plant.
- Q. It has not been taken out?
- A. No, sir.
- Q. But those reinvestments have been charged to operating expenses, haven't they?
- A. No, sir. Possibly I can illustrate that. We have a certain amount of bonds out for investments made in the property, we have certain other property which is represented by what our books show *as over and above operating expenses and interest*, that is, if we are putting in a machine this year and we have \$10,000 in excess of paying the bond interest, instead of selling bonds to get that \$10,000 that money has gone back into the plant in the money in excess of the bond interest, and has gone back into additions, so that a reappraisal would show the property on which no bonds are outstanding.
- Q. Where you put a new machine in to take the place of a similar one, how do you charge that?
- A. That would come out of this reserve.
- Q. Up to this time all these items, such as I have mentioned last, have been taken care of by your operating expense account?
- A. Yes, sir, *but there has been nothing of that kind that I know of except a few small lines of mains.*

Then on page 233, discussing the same subject, the witness says:

- Q. All these items have been taken care of in this plant up to this time, other than the items you have entered up in what you call your property, or construction account, haven't they?
- A. As far as I know the running expenses have gone into the operating cost, *but there has been practically no replacement either due to decay or inadequacy.*

And there the witness says the plant had been running ten years when his company bought it in 1901.

And on pages 232 and 233 of the printed record the same witness testified:

- Q. You don't mean to say there ever would come a time, or that there is a probability that you would have all your mains to replace at the same time?
- A. No.
- Q. That is hardly probable in the case of your plant?
- A. Yes, it is more likely, from the history of the business, usually the company finds anything inadequate they simply abandon it, so they build new works rather than put in new machinery in the old works.
- Q. If you keep your plant efficient, as this has been kept, such a thing as that can not occur?
- A. Yes, through inadequacy it would.
- Q. If you had an efficient plant, even if it was inadequate, you wouldn't have to discard all your present plant, would you?
- A. No, but it is better to put up entirely new works and operate an all new plant rather than to operate the old, or run two plants.
- Q. You could reinstall it, couldn't you?
- A. We will soon have to increase our capacity at the works; if we put in another water gas machine, we

will have to put it on other ground, as it is best for us to get a sufficiently large enough one in this one building, because greater efficiency can be maintained by using one big machine.

Q. If the small machine is an efficient and up-to-date machine, what will you do with it?

A. It lays idle there for reserve.

Q. You have to have something for reserve always?

A. Yes, we practically have to have something for reserve; *our works are nearly inadequate.*

And again, on pages 216-17, the same witness testifies:

Q. You speak of depreciation; is there an item of that character that is taken into account by all operators of gas companies and dealers in gas securities?

A. Yes, sir, and that is a very important consideration.

Q. You may explain that item.

A. Depreciation is a fund which must be accumulated, not alone to take care of the decay of the property, but also to provide for the inevitable inadequacy of the equipment. *It is plain that our works are very close to the point of being inadequate, and to get an additional amount of business we have to make an additional investment to take care of the new business, and we have to make provision for that future time or we wouldn't earn our interest. The same way with the mains leading out of our works into the streets; they must be taken up and larger ones put in.*

Q. How does that affect the value of the equipment that has been replaced?

A. That is largely worthless, whether it has been in a long or a short time. Then there is a third element, a portion of the equipment becomes obsolete, as for example the Springer water gas set; it has been replaced by something up-to-date.

Q. Can you give an example of specific inadequacy?

A. Yes, we have that in the case of our gas holder. We have taken a big chance in having a larger holder.

As bearing upon the question of the present inadequacy of the 2-inch mains of the complainant, and as showing that they are already outgrown by the city and are practically worthless, we call especial attention to the testimony of Professor Bemis (pp. 368-69, complete record).

It will be seen from that testimony that the whole tendency of the gas business is to discard 2-inch gas mains; that complainant's mains of that size in Lincoln would be "written off" in many places as having very little value on account of the size; that they have become inadequate to a considerable degree; that it requires excessively high pressure to force gas through these small mains and keep up the pressure throughout the city, especially at certain hours of the day. It will be observed that this increases the leakage and thus increases dissatisfaction among the consumers on account of the unequal high pressure; that this causes the gas to "blow" at the burner, which increases the gas bills without a corresponding increase of light and heat; that this results from the pressure being too high, and the burners not being turned down and adjusted to the increased pressure, and the gas being forced through the burner without giving its full illuminating or heating value; that it will register in the meter just the same, but will not give the benefit to the consumers.

He further states that he thinks that the 2-inch pipe has practically lost four-fifths of its value already on account of its inadequacy.

Second—As to the necessity for a depreciation or reserve reconstruction fund.

Notwithstanding the complainant contended in the lower court, and will undoubtedly claim here, that the present value of its tangible property should not be reduced on account of depreciation, because of the fact that it had been accustomed to keep up repairs out of its operating expense, it nevertheless claimed that it should be entitled to set aside annually five per cent of the value of its tangible property to provide a reconstruction fund to replace its plant when it had so depreciated through age, decay, inadequacy, or obsolescence, as to be useless. In other words, it claimed the right to take five per cent of the value of its tangible property to provide a fund to take care of depreciation, which had already been taken care of out of operating expenses, and deducted from the gross earnings of each year.

The testimony of the company's experts, however, while showing the necessity for the accumulation of such a fund, clearly shows that it is necessary notwithstanding current repairs, and that such repairs only take care of the plant to the extent of keeping it effective and in good working order, but do not ward off deterioration from age, inadequacy, or obsolescence.

The purpose of this depreciation fund was quite clearly stated by the complainants' witnesses as follows:

Vice-President Frueauff (p. 217, P. R.):

"Depreciation is a fund which must be accumulated, not alone to take care of the decay of the property, but also to provide for the inevitable inadequacy of the equipment. It is plain that our works are very close to the point of being inadequate," etc.

And again, on the same page:

- Q. From your experience, what would you say as to whether that item of depreciation should be over and above the outlay for the ordinary repairs and maintenance?
- A. Yes, sir, it must be. The repairs and maintenance would not have any future. The point we have in mind, in setting something aside for a depreciation, is to take care of that in the future. Repairs keep our equipment where it should be, while depreciation is the laying aside of a sum for the future.

The same witness (pp. 213-15, P. R.) states that 5 per cent would be the proper amount for this purpose.

Complainants' expert, Malone (p. 193, P. R.), testified as to this fund as follows:

- Q. If the funds you set aside for operating expenses are sufficient to take care of these things, as they go along, you don't need any other fund, do you, to take care of it?
- A. I think so, yes, sir.
- Q. Where the company has already made adequate provision for taking care of depreciation in the operating expense fund, you still think that you must make an additional arrangement to take care of it in some other fund?
- A. I do.
- Q. What is the difference, whether it is taken care of by the operating expense fund, or some other fund, called by some other name?
- A. Simply because one is repairs. When you put in a thing entirely new it is cheaper.
- Q. Suppose when you pay for it you pay for it out of operating expense?
- A. That isn't possible.

Q. Well, suppose you do pay for it out of that fund?

A. You couldn't do that, because *on your line of argument you keep on repairing until your plant falls down on you. After a certain number of years you have to tear it down and put up a new one; there is a limit to repairs on anything.*

The witness then gives it as his opinion that 5 per cent on the value of the plant would be the proper amount to set aside annually for this purpose.

Thus it is made clear by the complainants' own expert witnesses:

(1) That there is a clear distinction between ordinary repairs and depreciation, and that money spent in the one does not take care of the other.

(2) That it is necessary to set aside annually a fund equal to 5 per cent of the value of the perishable portion of the plant to take care of that loss by age, inadequacy, or obsolescence which is not taken care of by making ordinary repairs, which implies (a) that this class of property will depreciate to the extent of 5 per cent per annum, or become worthless in twenty years, and (b) that the element of depreciation had not been provided for by the fund spent for that purpose and charged each year to current expense, and (c) that the company, not having accumulated a depreciation fund to take care of depreciation, the present replacement value is subject to a deduction for depreciation of 5 per cent per annum from time of installation in order to arrive at the real present value of the property upon which the company is entitled to dividends.

Beginning in January, 1906, the company adopted the policy of setting aside \$1,000 per month, or \$12,000

per year as a depreciation fund for the entire property, including both the gas and electric departments, which would be \$8,000 for the gas department alone. The fact that the company, in due course of business, and before this suit was in contemplation, had taken \$8,000 per year as the correct amount to set aside as a depreciation, or reconstruction fund for the gas department, was undoubtedly accepted by the court as better evidence of the necessary amount to be set aside for this purpose than the opinion of complainant's expert witnesses in a case brought with the avowed object of setting aside a rate as confiscatory. Hence, the court allowed \$8,000 for this purpose.

We think, however, that the amount allowed by the court was too great and shall now endeavor to give our reasons for thinking so:

Professor Bemis, beginning on page 363 of the printed record, and continuing through several pages following, gives what we consider the fairest and most equitable method of estimating the necessary amount to be set aside annually for this fund. In substance, he takes up the different portions of the plant, estimates the probable life, and sets aside such sum as, put at interest, will yield a fund at the end of such life period, sufficient to reconstruct that portion of the plant, and this method is applied to each portion of the plant, the difference being merely that of the difference in the probable life of the different parts. The method applied by him is well stated at the bottom of page 363 and applying it to the item of mains, thus:

"I can not conceive a fairer method than the sinking fund method, namely, what sum yearly must be set aside so as to equal the principal or value of the

main, at an agreed rate of interest in the sinking fund, say 4 per cent or 5 per cent at the end of the life of the main. Take an illustration of this kind: Suppose some piece of property has a forty-year life—many buildings have that life. Now you may say that one-fortieth of the value of the building disappears every year. If, however, you ask the gas consumer to pay one-fortieth of the value of that building to the company every year, the company has the opportunity to invest that in its plant at more than sinking fund rates, or, at the worst, it can put it in the savings bank and loan it out at sinking fund rates, and, even at 4 per cent interest, its full value paid in forty annual instalments, would make, at the end of the time, two and one-half times the principal. That is, if you had a building worth \$100,000 and you assumed that it has a forty-year life, and therefore loses \$2,500 a year, and the gas consumer pays \$2,500 a year to the company, the consumer will pay apparently \$100,000 at the end of forty years, but the company will have \$250,000 to show for it. If it merely gets 4 per cent out of that investment in its own plant, or in a sinking fund, it would undoubtedly put it into the plant or in the sinking fund, and make more than 4 per cent. Why should not the consumer have the benefit of that extra \$150,000? It seems to me that if the company gets \$100,000 at the time it needs to use it, when the buildings need renewal at the end of the forty years, it has been recouped for all its loss, and \$1,000 a year instead of \$2,500 a year, in a 4 per cent sinking fund, will make \$100,000 at the end of forty years, the difference being that the consumer keeps the profits of the investment instead of the company. Therefore, it seems to me that the sinking fund method is the proper method for financing depreciation."

At this point we desire to call the court's attention to the fact that complainant's witness, Malone, refers to Professor Bemis as "one of the greatest authorities in the United States" (pp. 199-200 P. R.).

It seems to us that there is absolutely no flaw in the method outlined by Professor Bemis. It may be that the time assumed by him as the life of portions of the plant is too long, but whether that be so or not, it seems to us is entirely immaterial. A shorter time would increase the amount to be set aside annually, but would correspondingly increase the amount to be deducted annually from the value of the plant for depreciation, in estimating its present value. When once the present value of the plant is found, it seems to us that the correct method of providing for depreciation is to set aside such sum annually as will, when put out at a reasonable rate of interest, produce a sufficient fund to reconstruct the plant at the end of its life.

(1) CONTINGENT EXPENSE.

This item is explained by Mr. Malone (pp. 75 and 184, P. R.) as being a sum necessary to provide for expense that will accrue on any large job of this kind. He states that it is a fund, according to his information, all large corporations provide, and that the percentage runs from 5 per cent to 20 per cent. He places it at $12\frac{1}{2}$ per cent and places the fund at \$67,884.09. Professor Bemis thinks 10 per cent should cover both engineering and contingent expenses (p. 365, P. R.). Deducting the $2\frac{1}{2}$ per cent engineering expense, which we have already figured, we have $7\frac{1}{2}$ per cent as the proper percentage for contingent expense. We presume this should be figured on the original construction cost, less depreciation and excluding the lots upon which the buildings stand, and also excluding such items as meters, and meter and gas range connections, these forming no part of construction. The amount of such items, as we figure it, is \$171,136.36, and $7\frac{1}{2}$ per

cent thereon would be \$12,835.20 as the correct amount according to Bemis. The court fixed the amount at \$25,000. We do not believe anything should be allowed for this item of contingent expense. There are no facts given upon which to base an estimate of what the amount should be, and it is too vague and intangible to warrant including any amount on account of it as a basis for figuring rates.

(m) WORKING CAPITAL.

At the threshold of the discussion of the various factors entering into this item, we desire to call attention to the fact that substantially all of the large items included under this head, such as coal, oil, etc., are bought on credit by the company and do not represent actual cash expenditures when bought. In other words, this item of working capital upon which complainant claims the right to earn dividends is a mere fiction. The evidence shows that the company is accustomed to purchase these supplies on credit to such extent as to make working capital unnecessary. The company's accounts payable are shown to have been \$35,000 at the end of 1906, and \$50,000 at the end of 1907, on which no interest appears to have been paid (Wiggins, 349, 350). Mr. Honeywell testified (154, P. R.) that complainant was owing bills to the amount of \$40,000. Professor Bemis testified that, in so far as the company bought its supplies on credit without interest, it should not be permitted to charge interest on supplies to the public (369, 370, 408, 409, 410, P. R.).

We will now take up the various items included by complainant under the head of working capital, as set out at page 242 of the printed record. The company claims a working capital of \$60,000, but the court reduced it to \$50,000, expressly stating that the record did not show that the company had it, but that it ought to have it.

Even if this court should hold that the company is entitled to a working capital, in spite of its failure to show the necessity therefor, still we insist that the amount allowed by the trial court was greatly in excess of the reasonable necessities of the complainant.

COAL.

The company claims that 90 days' supply of coal must be kept on hand, and their witnesses estimated this to be from 2,500 to 3,300 tons (Malone, p. 83, and Honeywell, p. 166, P. R.). Complainant's books show that the total coal supply for the year 1907 was 7,098 tons, costing \$42,844.46 (Ex. 101, page 10 thereof, line 1000). One-fourth of this (90 days' supply) would be 1,774 tons, costing \$10,711.

But upon examination of the company's books we find that it had on hand:

January 1, 1906, 499.69 tons of coal (Ex. C, p. 25, line 2300).

July 1, 1906, 1094.61 tons of coal (Ex. D, p. 25, line 2300).

January 1, 1907, 181.27 tons of coal (Ex. C, p. 25, line 2305).

June 30, 1907, 2,068.07 tons of coal (Ex. D, p. 25, line 2305).

December 31, 1907, 1,491.89 tons of coal (Ex. 101, p. 25, line 2305).

The average of which would be 1,067.1 tons of coal on hand at any given time. At no time has the company had over 2,100 tons of coal on hand. The real average amount of money represented by the complainant's coal stock, at any time in the past, as disclosed by its books, would be \$6,402.60.

PURIFYING MATERIAL, PIPE, AND OIL STOCK.

The company claims \$1,600 for purifying material for a 90 days' supply. Its books show the cost of purifying material used in both coal gas and water gas departments for the entire year of 1907 to have cost \$781.17 (Ex. 101, p. 10, line 1016, p. 11, line 1112). One-fourth of this (for 90 days' supply) would be \$195.30. We offer no objection to the quantity of 6-inch and 4-inch C. I. pipe, but we do object to the price named of \$42 per ton, \$33 per ton being the actual cost to the company, as shown by its books and as pointed out by us in our discussion of mains. These items, so changed, would be \$247.50 and \$330 respectively. We make no objection to the item of \$630 for "oil stock." There is nothing in the record to indicate that it is not correct.

METERS.

The item of 120 meters of 3-, 5-, and 10-light, at \$7 each is not the correct amount to charge to working capital. Out of a total of 6,282 meters in use, 2,951 are 3-light, and cost \$5 each; 3,221 are 5-light, and cost \$6.25 each (p. 82, P. R.). The remaining 110 are 10-, 20-, 30-, 45-, 60-, 100-, and 150-light meters. This can in no way authorize a charge of \$7 per meter, for the reason that the relative number of these different sized meters in use, as shown on page 82 of the printed record, would indicate that this 120 is divided as follows:

57 3-light meters, costing \$5.00	
each or.....	\$285 00
60 5-light meters, costing \$6.25	
each or.....	375 00
2 10-light meters, costing \$7.50	
each or.....	15 00
1 20-light meter, costing \$10.60	
each or.....	10 60
Making a total of.....	<u>\$685 60</u>

Ex. C, p. 13, line 1332, shows the number of meters in the shop December 31, 1906, to be in proportion as follows:

Five 3-light to one 5-light, with an aggregate of three of the larger sizes.

We make no objection to the item of \$130 for meter prover nor to the item of shop tools \$750.

COKE.

The company claims 1,840 tons of coke as a necessary part of the working capital, for the reason that there is more coke made by the coal gas department than is used by the company in the manufacture of water gas, and for bench fuel, and it could always dispose of the surplus readily. In 1906 the company produced, and charged to its coke account, 4,460.34 tons of coke, and 283.42 tons of breeze (Ex. C, p. 25, line 2321). Line 2320 of page 25 of Ex. C shows on hand at the beginning of 1906, 258.24 tons of coke, and line 2327 shows 586.29 tons of coke on hand at the end of the year. Ex. D, p. 25, line 2320, shows 701.90 tons of coke on hand July 1, 1906; and line 2327 shows 282.88 tons of coke on hand June 30, 1907; Ex. 101, page 25, line 2327, shows 639.43 tons of coke on hand December 31, 1907. The average number of tons on hand, at any one time, figured from the above inventories taken each six months, under dates named, is 493.75 tons. Figuring the average tonnage of breeze on hand at any one time, in the same manner we have 115 tons. The value of these two items, figuring coke at \$5 per ton and breeze at \$1 per ton, instead of \$9,200, is \$2,583.75.

TAR.

The company includes in its estimate of working capital 40,000 gallons of tar at two cents per gallon. Its books show on hand:

January 1, 1906, 78,967 gallons (Ex. C, p. 25, line 2340).

June 30, 1906, 75,024 gallons (Ex. D, p. 25, line 2340).

January 1, 1907, 103,700 gallons (Ex. C, p. 25, line 2345).

June 30, 1907, 62,463 gallons (Ex. C, p. 25, line 2345).

December 31, 1907, 97,235 gallons (Ex. 101, p. 25, line 2345).

Which shows an average amount on hand of 79,500 gallons, which is excessive. The amount made in the one year 1907 was 108,263 gallons, and the amount used and sold in that year was 114,728 gallons, which proves that there is a sufficient demand for the surplus tar not used by the company to enable it to keep the tar stock at a minimum. We can see no reason why the company should keep on hand more than the output for ninety days, which, in 1907, would have been 27,000 gallons, instead of 40,000 gallons, and instead of being worth \$800 would be worth \$540.

FILLING.

The company claims \$1,300 on this part of the working capital. Its books show the cost of filling, including cost of labor in connection with same, covered by the item shown as bench repairs, for the year 1906, to be \$1,976.39 (Ex. C, p. 10, line 1011), and for 1907 to be \$4,022.24 (Ex. 101, p. 10, line 1011). This charge of \$4,022.24 for bench repairs for 1907 was excessive, because Manager Honeywell testified that the company spent \$9,000 for bench re-

pairs, which included this \$4,000, in the year 1907, and that the life of this work and material was three and one-half years (pp. 251, 252). The correct amount to charge to the year 1907 would have been \$2,571.50. This would make an average for 1906 and 1907, of \$2,273.95 per year, or \$568.44 for ninety days. The fact that the labor used in working up this material is involved in the calculation requires that a considerable part of this \$568.44 be eliminated from our consideration. The labor certainly figures as one-third of the amount, so we really have for the necessary amount of filling to be kept on hand for ninety days' use the sum of \$380.

MINOR ITEMS IN WORKING CAPITAL.

The office furniture listed as part of the working capital by Mr. Malone in his recapitulation upon page 242 of the printed record would not be objected to by us as part of the working capital if the record furnished sufficient data to show a proper division between the gas and electric departments, but we do object to it because of the arbitrary division between the gas department and the electric department, without any showing as to the data upon which the apportionment is made. The horses, wagons, and harness we can not object to, but the \$10,000 charged as pay rolls and purchase of supplies should be eliminated, for there is no showing on which to base these figures. We call attention to the various salaries and labor items paid by the company as shown by its books, for the year 1907, such pay roll totaling \$59,270, or \$5,000 per month. (See Ex. 101, opposite p. 470, P. R., and on p. 22 of the exhibit.)

All of these items are couched in general terms, and it was the duty of the company to furnish full particulars.

See:

Chicago & Grand Trunk Ry. Co. v. Wellman,
143 U. S. 339 (345), 36. L. Ed. 176.

State v. Adams Express Co., (Neb.) 122 N. W.
691.

Steenerson v. Great Northern, 69 Minn. 353, 72
N. W. 713.

Assuming the right of complainant to a reasonable working capital, we insist that a very liberal allowance for this item would be represented as follows, basing the several items upon our analysis above made:

Coal, 1,067.1 tons.....	\$ 6,402 60
Purifying material	195 30
Cast iron pipe stock 6-in., 300 ft. =7½ tons @ \$33.....	247 50
Cast iron pipe stock 4-in., 1,000 ft. =10 tons @ \$33.....	330 00
Oil stock, 15,000 gallons.....	630 00
120 3-, 5-, and 10-light meters....	685 60
1 meter prover.....	130 00
Shop, St. Dept. and plant tools...	750 00
493.75 tons coke and 115 tons breeze	2,583 75
27,000 gallons tar	540 00
Filling at gas plant.....	380 00
10 horses at \$140.....	1,400 00
9 wagons at \$65.....	605 00
10 sets harness	180 00
Pay rolls	5,000 00
Total	<u>\$21,059 75</u>

The following items are wholly without explanation in the evidence and should not be allowed:

Wrought iron pipes, etc.....	\$ 1,500
Gas heaters, etc.....	7,500
Office furniture and fixtures.....	2,372
Supplies	5,000
Totaling	<u>\$16,372</u>

Adding this \$16,372 to the \$21,059.75 above, we get \$37,421.75. However, as one-fourth of the entire expense for the year 1907 (Ex. 101, p. 9, line 917, under "total cost"), was \$35,481.09, this latter figure would be amply large, upon complainant's contention that it is entitled to ninety days' supply of coal, etc.

(n) COST OF ORGANIZING COMPANY.

The company claims the modest sum of \$24,950 for this item, which includes the duplicated \$10,000 for obtaining subscriptions to bonds, as we shall point out in our discussion of the item "Cost of Obtaining Money." The several matters entering into this item are found at page 242, printed record. Among other things, it contains an item of \$2,500 for engraving 300 bonds, also \$10,000 for attorneys' fees, and other items of smaller amounts but bearing similar proportions to things charged for.

Judge Tibbets, who is a lawyer of many years' experience in Lincoln, a man of affairs, who has had large experience in such matters, and who is a director in one of our banks, testified in relation to this matter (pp. 431-32 434-36, P. R.) and placed these figures at what this work can actually be done for in Lincoln. The trial court allowed for this item \$3,000, which is in excess of the figure given by Judge Tibbets. We make no special criticism of this item as fixed by the court, but the amount is certainly as liberal as the company can properly ask.

(o) INTEREST ON MONEY DURING CONSTRUCTION.

Complainant includes in its "recapitulation" of cost of replacing plant, interest on the money necessary to construction, during the period of construction, which is esti-

mated at one year. The trial court rightly excluded this item. The ultimate fact sought to be arrived at in an investigation of this kind is *the present value of the property employed by the company for the convenience of the public.*

The cost of replacement is merely a matter to be considered in arriving at such value. We contend that it is to be assumed that a corporation has its own money ready before starting construction, and whether it has or not it is to be treated as if it had.

San Diego Water Co. v. San Diego, 118 Cal. 556,
62 A. S. R. 261.

If the company had its own money to start with there is no reason why it could not arrange with any bank for interest on its bank balance as it should appear from time to time. At any rate, it would not need to keep but a very small portion of its construction fund subject to check at any one time, and the balance could be left at interest in any bank.

Even where money is raised for construction by the sale of bonds, all of the bonds would not need to be sold at the beginning, but it would be an easy matter to contract for the sale of the entire issue, to be delivered in instalments as the money is needed.

Again, there is no reason why the company should not get its plant in condition to serve a large number of the large consumers, who are in the business section and near the gas plant, long before the end of the year of construction. At any rate, this item is too vague and indefinite to be included in replacement cost, and should be entirely excluded.

(p) COST OF OBTAINING MONEY.

(q) INTEREST ON SAME FOR ONE YEAR.

One of the items included by the company in its estimate of the cost of replacement, is "Cost of Obtaining Money, 20 per cent, \$149,512.10" (see "Recapitulation," p. 236, P. R.). This item was entirely eliminated by the trial court, so that the purpose of our present discussion of it is to meet the claim of the company that it is a proper item to be included. Expert Malone (pp. 88 and 92, P. R.) and Mr. Frueauff (218) testify as to the cost of financing an enterprise of this kind, and place the amount at 20 per cent of the entire cost of construction. In other words, their sense of proportion seems to be so perverted that they would have us believe that it would cost one-fifth of the entire sum necessary to construct such a plant to raise the funds for that purpose.

This furnishes a fair sample of the kind of testimony relied upon by the company in connection with practically every item going to make up its estimate of the cost of replacing its plant.

Judge Tibbets (p. 443, P. R.), says that bonds of this kind could be sold for from 2 per cent to 3 per cent commission.

Beside, we call attention to the item "Cost of Organizing Company, \$24,950" (p. 236, P. R.), the items entering into which may be found on page 242, printed record. It will there be seen (bottom line), that the company has included "Incorporation Expense in Obtaining Subscription for Bonds, \$10,000." Now, we do not claim to know much about "high finance," but to us this looks very much like "cost of obtaining money" under another name.

The item of \$10,000 was included in the "Cost of Organizing Company," and is part of item 8, of the "Recapitulation" (p. 236, P. R.). Having thus buried this \$10,000, the company adds to its recapitulation the additional item for cost of obtaining money, \$149,512.10. In other words, when these figures are brought out into the open, we find that the company's estimate of replacement value contains two items representing the same thing, but in different amounts, and under different names, thus:

"Incorporation expense in obtaining subscriptions to bonds"	
(included in item 8, p. 236,	
as shown on p. 242 P. R.) ..\$	10,000 00
"Cost of obtaining money 20 per cent"	149,512 10
	<hr/>
Total for obtaining money, and selling bonds to obtain money	\$159,512 10

And it is also to be observed that the \$149,512.10 is produced by figuring 20 per cent on \$747,560.51, which includes the above-mentioned \$10,000, which indicates that the company's experts do not want anything to get away. This is certainly rolling the financial snow-ball to the limit. But nothing should be allowed for this item, and the court was right in excluding it.

"No distinction can be made between corporations which have completed their works with their own money and those which have borrowed money for that purpose from others. In either case, the money actually and reasonably invested is the basic criterion of the revenue to be allowed."

San Diego Water Co. v. San Diego, 118 Cal. 556,
62 A. S. R. 261.

It certainly has not come to this, that the public must finance the corporation and start it up in business and then treat the plant as the company's investment and pay dividends thereon.

What we have said relative to the cost of obtaining money, certainly applies, and with greater force, to the "interest for one year" upon such cost of obtaining money.

(B) PRESENT VALUE OF PLANT AS ESTIMATED FROM CONSIDERATION OF COMPLAINANT'S CONSTRUCTION ACCOUNT.

Another method of testing the accuracy of the testimony, and deductions therefrom, as to the present value of the company's gas plant, is as follows: Exhibit E, on page 139 of the printed record, is a summary, by years, of exhibit 129, on page 498 of the record, which is a detailed account, by years, of the construction work done in the gas department since the company's organization in 1872. We take the rate of depreciation, agreed upon in the testimony of the witnesses on both sides of this case, viz., 5 per cent per annum, as a general annual depreciation charge on all items.

The evidence shows that the original plant, excepting the ground, was "scrapped," or sold to Nebraska City, and hence this entire item has been replaced (pp. 121, 151, 164, P. R.), by the later investments in construction, which have gone into this construction account. Therefore we at once eliminate the \$54,247.32 for the year 1873.

We now take the investment for each year and depreciate it 5 per cent per annum down to 1907, which gives us the following results:

Year.	Depreciated value in 1907.				
1874	\$ 887 31	Less 165%	depreciation..	\$	00 00
1875	0 00	" 160%	"	..	00 00
1876	10,117 44	" 155%	"	..	00 00
1877	3,371 55	" 150%	"	..	00 00
1878	1,656 06	" 145%	"	..	00 00
1879	2,976 56	" 140%	"	..	00 00
1880	1,004 21	" 135%	"	..	00 00
1881	1,318 42	" 130%	"	..	00 00
1882	11,160 80	" 125%	"	..	00 00
1883	1,177 98	" 120%	"	..	00 00
1884	3,233 36	" 115%	"	..	00 00
1885	7,609 33	" 110%	"	..	00 00
1886	15,163 39	" 105%	"	..	00 00
1887	12,390 47	" 100%	"	..	00 00
1888	24,261 65	" 95%	"	..	1,213 08
1889	9,650 00	" 90%	"	..	965 00
1890	43,301 28	" 85%	"	..	6,495 19
1891	48,429 26	" 80%	"	..	9,685 84
1892	54,268 78	" 75%	"	..	13,567 19
1893	17,345 41	" 70%	"	..	5,203 62
1894	6,534 89	" 65%	"	..	2,287 21
1895	9,081 63	" 60%	"	..	3,632 64
1896	5,327 06	" 55%	"	..	2,397 17
1897	6,810 45	" 50%	"	..	3,405 23
1898	6,427 28	" 45%	"	..	3,535 00
1899	11,480 62	" 40%	"	..	6,888 36
1900	22,538 31	" 35%	"	..	14,649 90
1901	30,805 54	" 30%	"	..	21,563 85
1902	55,424 53	" 25%	"	..	41,568 40
1903	23,664 67	" 20%	"	..	18,931 73
1904	20,359 09	" 15%	"	..	17,205 22
1905	20,916 24	" 10%	"	..	18,824 58
1906	14,632 32	" 5%	"	..	13,900 71
1907	6,150 14	.....			6,150 14

Total depreciated value.....\$212,070 83

Add depreciation fund set aside in 1906... 8,000 00

Present value, as per construction account

less depreciation.\$220,070 83

The only changes which should be made in Manager Honeywell's figures in exhibit 129, and affecting the totals in Ex. E, are as follows: He charged the entire construction expense for the year 1900, of \$22,538, a second time in this account by including it *in toto* in the item of \$53,343.85 for 1901 (p. 341, P. R.), which, when deducted, leaves \$30,805.54 for the year 1901, as shown in our table above. Then, too, we have deducted from the total for the year 1892, the items "Commission on Bonds Sold, \$16,397.50," and "Expenses on Bonds, \$618.31," as not being chargeable to construction, but to organization cost, which, in itself, is not a depreciable item. Making the correct charge to construction for 1892, \$54,268.70.

The above conclusions reached by us are upon the assumption that the charges to construction are all correct. Upon referring to the testimony of accountant Wiggins, we find an unexplained state of the company's books as to certain labor charges (p. 342, P. R.). The company's books fail to disclose sufficient labor charges in its manufacturing cost account for the corresponding period of time. On the same page in the printed record will be found the testimony of the same witness concerning certain charges for fire brick used in cupola construction, which may be properly chargeable to construction, or may have been a part of operating expense.

(C) THE COMPANY'S RECEIPTS FROM STOCKS AND BONDS AS BEARING UPON VALUE OF PROPERTY.

The evidence bearing upon the company's financial operations is far from clear. The proceeds of the sales of stocks and bonds was used for construction purposes mostly, so far as the evidence shows, excepting one item of \$40,000, used to pay delinquent land interest (p. 349, P. R.).

Prior to June, 1890, the company issued \$175,000 worth of its stock (p. 347, P. R.). Beginning with June, 1890, and concluding with January 1, 1907, the company realized from the sale of its stocks and bonds the total sum of \$709,197, as follows:

June, 1890, stock par value	
25,000.	\$ 25,000 00
September, 1890, stock par value	
12,100.	12,100 00
October, 1890, stock par value	
63,334.	63,334 00
1891-92, 6 per cent bonds, par value \$333,000.	316,603 00
1901 Treas. stock, par value	
67,000.	50,250 00
December, 1901, stock par value	
900.	900 00
1902-3, not given.	77,000 00
1901-2 bonds, par value 64,000.	64,000 00
1904, stock, not given.	100,000 00
Total.	<u>\$709,197 00</u>

This total of \$709,197, less \$40,000 paid out for interest (p. 349, P. R.), represents the entire investment since 1890, in both the electric and gas departments. Dividing this two-thirds to the gas department, and one-third to the electric department, we have \$446,130 for the gas department and \$223,065 for the electric department. Taking this \$446,130, and adding to it the par value of the stock issued prior to the receipt of this money, or \$175,000, we have \$621,130, as the total amount expended in construction over the full thirty-five years since the plant came into existence, which includes all provision made for depreciation, whether by investment of funds in additional machinery, extensions of the

plant in any way, or replacement of machinery displaced on account of old age, use, or obsolescence. If depreciation takes place at the rate fixed by consensus of opinion of the witnesses, then we must refer back to the table preceding showing the depreciated value of the company's plant in 1907, for that table shows when this was invested in construction and the resulting present value of the plant.

On January 1, 1907, there was outstanding a total stock issue of \$2,250,000, and a total bond issue of \$1,129,600 (pp. 106, 118, 464, P. R.), for which the company received \$709,197. The item of \$175,000 stock issued prior to June, 1890, may or may not have been paid for in cash to the amount of the par value of the stock. There is no evidence upon that point. All of which proves that the stocks and bonds of this company are mostly water. Any way that it can be figured will not show more than \$844,197 invested in the whole plant, gas and electric, from 1872 down to date. The company makes no showing as to what has been added to the plant out of the earnings; hence we are in the dark as to that. Assuming the division to be two-thirds and one-third now, and not excluding the \$175,000 of stock issued prior to June, 1890, the gas department would represent a total investment in repairs, replacements and extensions of \$562,788.

The construction account of the company as given by it is \$603,000, which should be corrected by eliminating therefrom \$39,544.12 on account of errors which we have heretofore pointed out. When these errors are eliminated, the construction account, as given by the company for the gas department, would be \$563,446. Com

paring this with the amount invested in the gas department as deduced from proceeds of stocks and bonds above pointed out, we find that the results practically agree, thus:

Amount put into construction (including some replacement and extensions) as deduced from proceeds of the sales of stocks and bonds.....	\$562,788 00
Amount shown in construction account, less errors pointed out.	563,446 00

When depreciation is taken into account, as we have heretofore discussed it, it will be found that the valuation of \$225,000 placed upon the company's plant in 1903, in the tax litigation, by the officers of the company, as pointed out by Judge Tibbets (pp. 444 and 445, P. R.) was substantially correct.

And it might be well to call the court's attention, at this point, to the fact that this valuation so placed upon the plant by the company's officers under oath is competent evidence in this case.

"Valuation of a waterworks plant for purpose of taxation may be considered by the court in determining the reasonableness of water rates as fixed by a board of supervisors, especially where such valuation is sworn to by the officers of the water company."

San Diego L. & T. Co. v. Jasper, 189 U. S. 439,
47 L. Ed. 892.

(D) CAPITALIZATION AS EVIDENCE OF PRESENT VALUE.

In *Knoxville v. Knoxville Water Co.*, 212 U. S. 1,
53 L. Ed. 371, the weight to be given to nominal capital-

ization, in an inquiry as to the value of the tangible property of a corporation, where the same is largely fictitious, was stated in the third paragraph of the syllabus, thus:

“Capitalization affords no guide to the present value of the tangible property of a waterworks company which is objecting to the rates fixed by municipal ordinance as confiscatory, where substantially all the common and preferred stock was issued under construction contracts entered into with persons who controlled the corporate action, and was greatly in excess of the true value of the property furnished under the contracts.”

See, also,

Smyth v. Ames, 169 U. S. 466, 42 L. Ed. 819.

A public service corporation, regardless of the amount of its stocks and bonds, is only entitled to a fair return on the value of the property at the time used for the convenience of the public. When this return has been received by the corporation, it becomes the property of the corporation to be applied to interest upon bonds and the balance distributed in dividends. If the net income is not sufficient to pay the interest on bonds, that it is the misfortune of the bondholders and not of the public. If there is only enough of a net income to pay interest on bonds, and nothing is left for dividends, this is a misfortune of the stockholders. This matter is well stated by Judge Garoutte in *San Diego Water Company v. City of San Diego*, 118 Cal. 556, 62 A. S. R. 261, in the following language:

“But as to the amount of the bonded indebtedness, or the amount of interest annually accruing thereon, we fail to see their materiality in determining the value of the plant, or the sum total of revenue to

be raised from the sales of water. It is not a question in which rate payers are concerned, whether the water company has no outstanding indebtedness, or is floundering under a bonded debt which threatens to sink it at any moment. If the municipality is required to establish a scale of rates which will produce a revenue sufficient to pay interest upon outstanding bonds, this provision of the constitution would not only be a perpetual guaranty to the bondholders for the payment of their annual interest, but a constant incentive to additional issues of bonds. Such conditions were never contemplated by anybody. It is the duty of the municipality, when it has arrived at a determination as to the valuation of the plant, to determine the necessary outlay for the ensuing year; then to determine what would be a reasonable, just, and fair compensation to the company, based upon the valuation of the plant, and thereupon to fix a schedule of rates which will produce that sum of money. If there be outstanding bonds, the company may apply its income to the payment of interest thereon. If there be no outstanding bonds, this income may pass to the pockets of the stockholders in the shape of dividends declared. A municipality must fix a fair and just rate for the water, based upon the valuation of the plant, and when it has done this, its duty has been performed, and the revenue collected under such rates is the property of the company, to do with as it seems best."

That the public should only be required to pay a fair and reasonable return upon the present reasonable value of the company's property used at the time for the convenience of the public, and can not be required to provide, in addition thereto, for the payment of interest upon bonded or other debts; *and that the rate should be the same whether the works are acquired or constructed by the company from its own resources, or with money borrowed from others.*

See,

Redlands, etc., Water Co. v. Redlands (Cal.), 53
Pac. 843, 844.

Method of Arriving at Value of Plant.

"The cost of a plant devoted by its owner to public service is not always a reliable criterion of its reasonable value; it may have cost too much, it may have been constructed on a scale too large for the needs of the public which it is intended to serve. However, the accuracy of these figures has not been challenged except in this; the defendants argue that the failure of complainant to produce evidence as to the cost of reproducing the road is fatal to its case. The cost of reproducing the physical structures of a railroad is not necessarily equivalent to the reasonable value of the road at the time it is being used. Such a standard may be either too narrow or too broad to serve as the measure of present reasonable value. For instance, it does not cover the fact that decay and use may have impaired the value of the property, or that the road has an established business, which imparts a value in addition to the value of its physical constructions.

"Each case must depend largely on its own special facts, and every element or circumstance which increases or depreciates the value of the property should be given due consideration and allowed that weight to which it is entitled. Neither the fair value of stocks and bonds, the cost of construction, nor the cost of reproducing the plant is absolutely controlling, but each should be regarded as a fact tending to show fair value."

Southern Pac. Co. v. Bartine, 170 Fed. 725 (p. 751).

See also:

San Diego L. & T. Co. v. Jasper, 189 U. S. 439,
47 L. Ed. 892.

The closing sentence of the opinion in the case last cited disposes of the matter of original cost and disappointed hopes of the promoters of the company in these words:

"If the original company embarked upon a great speculation which has not turned out as expected, more modest valuations are a result to which it must make up its mind."

Time of Fixing Value.

That the income of the year succeeding the passage of the ordinance was proper to be considered, even though the ordinance was not put into effect, see:

Knoxville Water Co. v. Knoxville, 212 U. S. 1
(p. 14), 53 L. Ed. 371 (on p. 380.)

FRANCHISE.

1. *Should the value of the franchise be included?*

The learned district judge who tried this case in the court below excluded the franchise from consideration as an element in fixing a value upon the complainant's property upon which it is entitled to dividends. His reason for doing so is thus stated in the opinion:

"I do not allow anything as the value of complainant's franchise. It does not appear from the allegations of the bill or proofs that anything was paid for the franchise. The city simply granted to complainant, without compensation, the right to use the public streets and alleys for the purpose of constructing and operating its plant. This was a mere right and privilege to complainant, and did not involve the expenditure of money. While it is true a franchise is a property right,

which will protect complainant in its use of the streets and alleys for the purposes expressed, yet it involves no investment of money, complainant's investment being in its tangible property under authority of the franchise, and the public ought not to be taxed for a privilege which it has voluntarily granted. I do not think there is anything in the case of *Wilcox v. Consolidated Gas Co.*, 129 Sup. Ct. Rep. 192, which conflicts with this view. In that case the legislative enactment providing for consolidation of various companies expressly required that a value should be given to the franchise of the respective companies. For that reason the court sustained the value of the franchise thus fixed, but refused to recognize any increased value accruing during subsequent years by reason of the large increase in the tangible property from extensions, etc."

— For the purposes of this case we assume that complainant has a valid franchise. We do not think its validity is here involved. The validity of the franchise could only be determined in a direct proceeding brought for that purpose.

Branson v. Albion Tel. Co., (Neb.) 93 N. W. 201.

It is conceded that special franchises, such as this, partake of the nature of and are regarded as property by the courts. Whatever value such a franchise has is based upon the earning power of the company, and it has no value which can be estimated separate and apart from such earning power. We have not been able to discover that this court has ever passed upon the exact point here raised, viz., whether, in estimating the capital of a public service corporation for the purpose of fixing a basis for testing the validity of established rates, a separate valuation may be placed upon the special franchise separate

and apart from the value of its tangible property, and included in the sum upon which the corporation is entitled to earn dividends.

In the case of *Wilcox v. Consolidated Gas Co.*, 212 U. S. 19, 53 L. Ed. 382, the company was allowed the value of the franchises of the several companies which were consolidated, the value allowed being that fixed by them at the time of the consolidation in 1884, under legislative authority, and which entered into the new capitalization. The increase found by the lower court was rejected, but this, as we read the opinion, was upon the ground that the amount of the increased value was not properly arrived at. We are therefore left in doubt as to what this court would have done had the lower court had competent evidence before it as to the value of the franchise and based its findings thereon.

The learned district judge who tried the *Wilcox* case below stated that his personal convictions were against placing any value upon such franchises in considering the compensatory character of rates, but felt constrained to follow the reasoning of former adjudications in which such franchises were recognized as property. His personal views were stated in this language:

"For these reasons I believe that, on principle, a franchise should be held to have no value except that arising from its use as a shield to protect those investing their property upon the faith thereof, and that, considered alone and apart from the property which it renders fruitful, it possesses no more economic value than does an actual shield possess fighting value, apart from the soldier who bears it."

In the recent work of Wyman on Public Service Corporations, this matter of franchise valuation was discussed in the light of the most recent authorities. The author lays down the rule that the value of the franchise should not be considered in regulating rates.

Sec. 1104 of that work reads as follows:

"It should be clear that in estimating the capital upon which a public service company is entitled to a fair return the value of a franchise enjoyed by the company can not be considered. The value of the franchise is based upon the capacity of the company to earn profits; and it becomes greater when the earnings of the company are increased. If, therefore, a high rate of income could be justified on account of the great value of the franchise, this fact would in turn enhance the value of the franchise itself and so justify a still higher charge; and there would be no limit to the legal charge of the company which could be enforced should such franchise value be permitted to increase in this way the capital charges. As Mr. Justice Savage said in a late Maine case involving this point: 'In connection it should be noted that to say that the reasonableness of rates depends upon the fair value of the property used, and that the fair value of the property used depends upon the rates which may be reasonably charged, seems to be arguing in a circle. If we should say that reasonableness of rates depended solely upon the value of the property, and that the value of the property depended solely upon the rates which may be reasonably charged, such would be the case. But neither proposition is true.' It unquestionably follows that such franchise values can not stand in the way of rate regulation. As Mr. Justice Peckham recently said in the Supreme Court of the United States, as to a valuation of the property of the Consolidated Gas Company, which included some millions for its franchises: 'Its past value was

founded upon the opportunity of obtaining these enormous and excessive returns upon the property of the company, without legislative interference with the price for the supply of gas, but that immunity for the future was, of course, uncertain, and the moment it ceased and the legislature reduced the earnings to a reasonable sum the great value of the franchises would be at once and unfavorably affected.' "

It seems to us that the rule should be that franchises of this character should be treated as property only to the extent that the company will be protected by them in the exercise of the rights granted therein, and upon the faith of which the company has expended its funds; but where the franchise is a mere voluntary grant by the public, and for which no money has been paid, and where the company has nothing invested therein, that no value should be placed thereon as an element in determining the compensatory character of rates. The company has no actual investment in the franchise, and why should it be permitted to demand a return from the public upon a mere right to occupy the public streets which the public has gratuitously granted?

2. *No evidence of franchise value.*

But, even if this court should hold that the value of this franchise should be included with the tangible property of the complainant in arriving at the reasonable value of the property upon which the complainant is entitled to earn dividends, still we submit that there is no competent evidence in the record, in fact no evidence at all, as to the value of this franchise, and the lower court was right in excluding it, even though he assigned a wrong reason for doing so. The only evi-

dence in this record touching the value of the franchise is to be found in the testimony of Vice-President Frueauff as follows:

CROSS-EXAMINATION (PRINTED RECORD, 218-219).

- Q. Would you be acquainted with what would be the fair value of such a franchise in a city like Lincoln, if there was a perpetual franchise for the use of the streets to manufacture and sell gas in the municipality?
- A. I don't believe I could give any very competent testimony on that; my belief would be that a right of that sort ought to have an *earning power* of \$75,000 and be able to earn at that much better rate, \$75,000 to \$100,000 possibly.

CROSS-EXAMINATION (p. 224).

- Q. In a city like Lincoln a franchise, where you are compelled to do business under such adverse circumstances, isn't of much value, is it?
- A. Yes, it is bound to have a value in connection with our property. Without the property, although it cost us \$60,000, it would be worthless.
- Q. But you said the value of the franchise depended on the earning capacity of the plant?
- A. That was not just my answer.
- Q. But that would be a fact?
- A. Yes, sir.
- Q. Under the present rate you have put into effect here in this city, you have stated you could earn how much on your investment?
- A. 21½ per cent.
- Q. You would not consider that a very good business, very valuable?
- A. No, sir.

- Q. You would not call it worth \$100,000?
- A. You would necessarily have to have a value or you could not tell the cost of your plant.
- Q. Suppose you had the money and was going to buy a plant, would you give \$100,000 for the chance of making 2½ per cent on your money?
- A. No, sir; but I would have a chance to make more than that on it, or I wouldn't buy it. In time the business could be worked up.
- Q. Even under such adverse conditions as there is here in Lincoln, you could, in the future, work it up?
- A. I believe so; if we could get normal conditions we can.
- Q. So you would not place a value of \$75,000 or \$100,000 on the conditions of today, but as you hope to have in the future?
- A. No, sir; I put that as it is now. It has to be as it is now or there is no value here. Whether it returns a low or high rate it has some value.

We call attention to the fact that in his testimony on direct examination above quoted the witness does not pretend to be competent to express an opinion as to the franchise value. He merely expresses his *belief*, and his belief is not as to the *value* of the franchise, but as to its "*earning power*." The testimony given on cross-examination merely follows that given on direct examination, and must be assumed to relate to "*earning power*" rather than to value. That this is the correct interpretation of this testimony is evidenced by the fact that this witness, on page 214, printed record, gave it as his opinion that the company ought to now earn 8 per cent on its investment, and, in the recapitulation of the "Cost of Replacing Gas Plant," Ex. 1, page 236 of the printed record, the complainant has given all of the elements which it claims

should enter into the matter of valuation of its plant, and there is no item there given of the separate value of the franchise, independent of the property, but the sum total of the items, amounting to \$904,572.61, is designated as "value of franchise," and 8 per cent on this sum is about the figure given by the witness as the "earning power" of the franchise. In other words, in the statement by the complainant, it did not place any separate value upon its franchise, but considered the franchise as entering into the value of each and all of the other items, and that the "Value of the Franchise" was represented by the sum total of all the items given in the recapitulation referred to, as constituting its entire investment. It therefore seems to us that this evidence should be interpreted as meaning nothing more nor less than a statement by the witness as to what he thought the *earning power* of their *entire investment*, amounting to \$904,572.61, should be in the city of Lincoln; and that what he meant by "earning power" of the franchise was 8 per cent upon the "Value of the Franchise," which he considered identical with the sum total of all of the items set out in said recapitulation as constituting the entire investment.

Since the burden of proof was upon the complainant to show a state of facts which would leave no just or fair doubt of the confiscatory character of the rate complained of, it seems to us that it wholly failed, by the foregoing testimony, to furnish anything by way of competent evidence which would enable the court to fix a value upon this special franchise, as a separate item, to be included in the value of the property upon which complainant is entitled to earn dividends.

3. *Taxation and Franchise Value.*

It was contended by complainant that the evidence shows that the city of Lincoln had included in the complainant's city taxes for 1907 an item of \$60,000 as the value of the franchise. The testimony upon which complainant relies to show this fact was that of the company's general manager, Mr. Honeywell, found on page 139 of the printed record, as follows:

Q. Have the city taxing authorities included any sum for the value of the franchise? If so, what?

Mr. Stewart: Defendant objects as not the best evidence.

A. Yes, sir; \$60,000, I think, are the figures.

This of course, if true, included both the gas and electric departments, \$40,000 of which would be the amount to be apportioned to the gas department under the method pursued by the company.

We submit that the foregoing evidence was not the best evidence, and was not competent to show that any valuation had been placed upon the franchise by the city authorities in assessing complainant for taxation. And, beside, the complainant put in evidence exhibits F and G, found on pages 155 and 156 of the printed record, being complainant's realty and personal tax lists for 1907, and these tax lists do not disclose that anything was included for franchise value, separate and apart from the other property of the complainant. Besides, as a matter of law, the fact that the city may have included in the tax list for 1907 an item of \$60,000, or any other sum, as the value of the franchise, would not tend to prove the value

of the franchise, or furnish any argument in favor of including such value as an item in the list of complainant's property upon which it is entitled to dividends, because whatever taxes are paid by the complainant are charged by it to operating expenses and, in the last analysis, are borne by the public. This identical matter was disposed of by this court in the case of *Wilcox v. Consolidated Gas Co.*, 212 U. S. 19, 53 L. Ed. 382. The 9th paragraph of the syllabus relating to the matter reads as follows:

"The assessed value for taxation of the franchises of a gas company furnishes no criterion by which to ascertain their value, when testing the reasonableness of gas rates as fixed by statute, where the taxes are treated by the company as part of its operating expenses, to be paid out of its earnings before the net amount applicable to dividends can be ascertained."

RECAPITULATION OF REPLACEMENT VALUE AS CLAIMED BY
THE CITY.

(a) Coal gas apparatus.....	\$ 34,870 50
(b) Water gas apparatus.....	14,965 45
(c) Buildings	24,643 00
(d) Real estate	2,400 00
(e) Mains under dirt streets and	
(f) Mains under paved streets..	63,956 18
(g) Gas service pipes.....	57,344 23
(h) Gas meters	27,212 18
(i) Meter connections	4,728 00
(j) Piping for gas ranges.....	12,375 00
(k) Engineering expense	4,278 40
(l) Contingent expense incident to construction, (\$25,000, allowed by lower court), should be eliminated or reduced to	12,835 20
(m) Working capital	35,481 09
(n) Cost of organization.....	3,000 00

(o) Interest on money during construction	0,000 00
(p) Cost of obtaining money and	
(q) Interest on such cost for one year	0,000 00
(r) Franchise value	0,000 00

Total present value..\$298,089 23

EARNINGS.

(1) Of both departments.

The complainant is manufacturing and distributing to consumers both gas and electric current. It does not claim to have more than one franchise, but assumes the right to manufacture and sell electricity under the action of the city council of June 16, 1890, whereby it was sought to enlarge the original gas franchise to include electricity. Both branches of the business are conducted by complainant as one corporation. There is, to be sure, a separate department for each, but both are under the same general management, have the same grounds for their buildings and plants for generating power and steam. Books are kept, of course, purporting to show the standing of the two departments in their relations to each other. In arriving at the relative earnings, expense, and profits of the two departments, and, also, in estimating the value of the proportion of the common property and labor used in each department, an arbitrary division is made on the assumption that the property employed, and business done, in the electrical department equal one-third of the whole. Accordingly, one-third of the expense is charged to the electrical department, and two-thirds to the gas department. We contend that the burden was upon the complainant to show that the rate fixed by the ordinance was such that

its income, arising from its entire business, would, as a result of its operation, be reduced below the point of fair and reasonable compensation. The original business was a gas business, pure and simple. When electricity came into general use for light and power, and became a competitor of gas, it was deemed wise for the company to enlarge its equipment and prepare itself to manufacture and sell electricity. This, of course, was intended as a mere subordinate or supplemental branch of the main business of the company, as a means of increasing the earnings of the company, and of making its whole business more profitable to its stockholders. It was not intended as a separate and independent business. It was merely a new branch or extension of the main business for which the original franchise was granted. There was no new and separate franchise procured, but the old one was amended or enlarged. No new corporation was created. The electrical equipment was installed by the company so as to be operated in conjunction with its gas plant and business. The same clerical help and the same offices are used, and losses sustained, or profits made, in the electrical department concern the stockholders of the corporation the same as those occurring in the gas department. Every dollar that went into the plant and equipment of the electrical department came from the funds of the company, and represents earnings of the company, or money borrowed by the company and diverted to that purpose. If the venture had failed, the loss would have fallen upon the stockholders and the public, the same as a loss in any other branch of the business. All obligations incurred in the operation of the electric business are obligations of the company the same as if incurred in the gas department, and every dollar of the assets of the company is liable therefor, and these burdens are all carried by the

company indiscriminately. These facts can not be changed or obscured by the device of keeping books between the two departments. Neither the rights and liabilities of the stockholders nor the interest of the public can be jeopardized, nor modified in the slightest degree by any system of bookkeeping which the company may see fit to adopt. Suppose that, in the use of electric current, injuries are inflicted upon life and property resulting in large judgments against the company, is it not plain that the entire corporation and the public would be injured to the extent that the credit of the company was impaired, or the efficiency of the gas plant thereby injured? If the interest of the public is to be jeopardized by such hazards as may be incident to the operation of this electric business, why is not the public entitled to such benefits as may arise therefrom. It seems to us that, if the public is at all concerned in the economical and prudent management of a public service corporation in so far as the same may result in the raising or lowering of the cost of the service furnished by such corporation, it must follow that the public has the right to demand that, in an inquiry involving the reasonableness of such rates, all profits produced by the employment of the capital of the corporation, or from the energy, enterprise, and business prudence of its officers, shall be taken into account.

It is the duty of complainant to so conduct its business as to make it profitable without imposing undue burdens on the public. It is not within its power, when it reaches the point where careful and economical management would produce fair profits in the business for which it was organized, so to subdivide its business into departments as to reduce its profits below the point of compensation. It is the company's duty to devote the talents and

enterprise of its officers and employees to the building up of its business, improving the plant and the efficiency of the service, and in the reduction of the price of the service to the public, to the lowest point possible consistent with fair and reasonable compensation to itself. It is its duty to operate its various departments together so as to make one complement and supplement the other. Like any private business, there may be a loss in one department which should be overcome in another. In other words, the entire business should be so operated that the average income will be remunerative upon the entire plant. If the rule is once established that public service corporations may divide their business into departments and divert the profits from the main business, which is the only one concerned in the matter of rate regulation, thereby placing a part of its property and income beyond the reach, investigation, and inquiry of the public, then there will be no such thing as controlling and regulating rates to be charged by such corporations. A door will be left open which will enable public service corporations to evade the action of rate-making bodies. Bookkeepers will become more powerful and potent than legislatures and courts. If it is not now the rule, it ought to be, that, when public service corporations have been chartered to transact a particular business under one franchise and as one corporation, they should be required to operate that business and any other business which they may lawfully operate in connection therewith, and which will enable them to sell to the public their products, by-products, or residuals, or their service of whatever character, at the least price possible consistent with proper remuneration to the corporation. There should be no separate departments requiring separate sets of books. The problem of rate-making should not be made more complicated than it

is now by any system of bookkeeping, or figure juggling, which may be devised to escape the action of rate-making bodies. It should not be tolerated that stockholders in a public service corporation should be permitted to draw dividends which arise from various departments of a single corporation, the sum total of which makes their stock more valuable and their rate of income larger, and yet, at the same time, be heard to say that the particular department concerned in a rate-making inquiry is not yielding a fair profit. If any such policy is to be tolerated, then we see no reason why this complainant may not organize a "Coke Department," or a "Tar Department," or a "Cinder Department," for the handling of these various residuals and charge them up to the various departments at such arbitrary prices as the interest of the stockholders may dictate and the bookkeeper may see fit to enter. We do not believe that any such practice is sanctioned by public policy nor that it should meet with judicial approval.

While we are unable to find that the exact point has been passed upon, there are many cases which have been before this and other courts, in which the principle for which we are now contending has been established, and we believe that under these authorities, and upon principle, the appellant can not be heard to complain because a segregated part of its business will not show a fair profit under a given rate. Before it can successfully attack such rates as confiscatory, it must show that the effect of its operation will so reduce the earnings from its entire business as to deprive it of a reasonable return upon the value of its entire property used in the public service.

People ex rel. v. Alton Ry., 176 Ill. 512 (52 N. E. 292).

Delaware St. Grange v. N. Y. Ry. Co., 3 Inter. St. Com. Reps. 554.

Wilkes-Barre v. Spring-Brook, 4 Lack. Leg. News, 367.

Steenerson v. Great Northern, 69 Minn. 353 (72 N. W. 713.)

M. & S. R. Co. v. Minn., 186 U. S. 257 (46 L. Ed. 1151).

St. John v. Railway, 22 Wallace, 136.

So. Pac. v. R. R. Co., 78 Fed. 236.

Atl. R. Co. v. No. Car., 206 U. S. 1 (51 L. Ed. 933).

In *St. Louis Ry. Co. v. Gill*, *supra*, three railroads had been consolidated under one name and corporation. The legislature of Arkansas passed a law providing a penalty for any railroad company increasing passenger fares above three cents per mile. Complaint was made against the railroad company for violation of that statute, and defendant offered to show as a defense that three cents a mile on that particular piece of road would not be compensatory. From an adverse judgment of the supreme court of Arkansas the company carried the case to this Court on the federal question involved. In disposing of the matter this Court said:

“It therefore appears that the allegations made and the evidence offered did not cover the company’s railroad as an entirety even in the state of Arkansas, but were made in reference to that portion of the road originally belonging to the St. Louis, Arkansas & Texas Railway, and extending from the northern boundary of Arkansas to Fayetteville in said state. In this state of facts we agree with the

views of the supreme court of Arkansas, as disclosed in the opinion contained in the record, and which were to the effect that the correct test was as to the effect of the act on the defendant's entire line, and not upon that part which was formerly a part of one of the consolidating roads, that the company can not claim the right to earn a net profit from every mile, section, or other part in which the road might be divided, nor attack as unjust a regulation which fixed a rate, at which some such part would be unremunerative; that it would be practically impossible to ascertain in what proportion the several parts should share with others in the expenses and receipts in which they participated; and, finally, that to the extent that the question of injustice is to be determined by the effects of the act upon the earnings of the company, the earnings of the entire line must be estimated as against all its legitimate expenses under operation of the act within the limits of the state of Arkansas."

In *People ex rel. v. Alton, supra*, the defendant had consolidated a number of lines and was operating a certain branch road. A mandamus was brought to compel the defendant to run a daily passenger train on such branch line; the defense interposed by the railway company was that the receipts from that line were insufficient to justify the defendants operating a daily passenger. The court in granting the mandamus, says:

"But why should this branch be considered separately? Appellee operates its main road and leased lines as one system, and as thus operated the main road and its connections or branches yield the net yearly income of about \$600,000. . . .

"If it be admitted that a railroad company is not bound to run a separate passenger train, when the business is not sufficient to warrant it in doing so, we are confronted at this point with the question whether this doctrine refers to the business done by

the main road and other roads leased by it and connected with it, all of which are operated, or required to be operated as one line. . . . We are of the opinion that the whole business of the various parts operated as one line should be taken into consideration where the circumstances are such as are revealed by this record."

In *Delaware State Grange v. N. Y. R. R. Co.*, *supra*, complaint was made before the interstate commerce commission that the railway had made unreasonably high charges for hauling fruit on its branch lines. The defense of the railroad was that these lines were unprofitable, and therefore a high rate was made in order that the line might earn something. In refusing to consider the earnings of the line apart from the earnings of the entire plant, the commission said:

"The fact upon which stress is laid by the respondents, that some of the small subsidiary lines, according to the evidence, are operated at a loss, is not overlooked. Like fences, drains, and fertilizers upon farms, they involve cost, but have their uses, and are to be considered relatively and not independently. They are feeders to the main lines, and help to swell the revenues of those lines. Their profitability is not to be measured solely by what they earn themselves, but by the increase of business and revenue they bring to the main lines. For book-keeping purposes it is proper enough to keep their accounts separately, but for usefulness to the system of which they form a part, these accounts are slight evidence, and these feeders are entitled to a much larger credit.

"For the purposes of rates the several auxiliary roads should not be looked upon as wholly independent lines which may separately establish rates looking only to a satisfactory ledger account of each separate road. These subordinate and branch roads are for all purposes of control and operation, parts of the one great system."

If a part of a system of a railroad could not be segregated for the purpose of increasing rates of transportation in order to make such line profitable, as held by the above cases, then upon what theory, or principle, can a single plant be segregated into separate departments, many of which may earn a large and unusual profit when so separated, and yet the earnings of the remainder, after such segregation, show the returns therefrom to be unprofitable, thereby entitling it to such increased rate as will be remunerative for that remainder?

In the case of *State v. Adams Express Co.*, (Neb.) 122 N. W. 691, the supreme court of Nebraska, in the second section of the syllabus, stated:

"When an attempt is made to strike down a rate statute, it is incumbent on the attacking party to make full, fair, and complete disclosure of all of the revenues derived from the business, and the disbursement of the same for all purposes, including salaries paid to all of its officers, agents, and employees, so that it may be determined whether such salary and expenditures are necessary as well as reasonable in amount."

In support of the above doctrine, in the body of the opinion, Judge Barnes, speaking for the Court, quoted from *Mr. Justice Brewer* in the case of *Chicago & Grand Trunk Ry. Co. v. Wellman*, 143 U. S. 339, 36 L. Ed. 176, as follows:

"Surely, before the courts are called upon to adjudge an act of the legislature fixing the maximum passenger rates for railroad companies to be unconstitutional, on the ground that its enforcement would prevent the stockholders from receiving any dividends on their investment, or the bondholders any interest on their loans, they should be fully ad-

vised as to what is done with the receipts and earnings of the company; for, if so advised, it might clearly appear that a prudent and honest management would, within the prescribed rates, secure to the bondholders their interest, and to the stockholders reasonable dividends. While the protection of vested rights of property is a supreme duty of the courts, it has not come to this that the legislative power rests subservient to the discretion of any railroad corporation, which may, by exorbitant and unreasonable salaries, or in some other improper way, transfer its earnings into what it is pleased to call 'operating expenses.'

. . . The silence of the record gives us no information, and we have no knowledge outside thereof and no suspicion of wrong. Our suggestion is only to indicate how easily courts may be misled into doing grievous wrong to the public, and how careful they should be to not declare legislative acts unconstitutional upon agreed and general statements, and without the fullest disclosure of all material facts."

In the case of *State v. Adams Express Co.*, *supra*, the company did not disclose, and the record did not show, the earnings of the company from its money-order business, and the court held that these should be shown and were necessary in determining the validity of the rate in question as it affected the express business. The same contention was made by the express company with reference to the money-order business as will be made here with reference to the electric business of the gas company. In disposing of this matter Judge Barnes, in the body of the opinion on page 694 (122 N. W.), said:

"At the time the defendant closed its testimony and rested its case, the statute had been in force for at least sixteen months, and the result of the rate fixed thereby could have been clearly and accurately shown. Yet the company declined to make

such a showing, and rested its case on conjecture, assumption, and insufficient comparison. We are therefore of opinion that this showing does not meet the burden of proof which the law places upon the defendant. On the other hand, the plaintiff has shown, from the monthly reports made by the defendant company to the Nebraska state railway commission up to and including the month of October of the year 1908, that the reduction complained of has resulted in a large increase of defendant's intrastate business without a corresponding increase of expenses, and has produced a net income amounting to more than 4 per cent of its gross receipts, *exclusive of its money-order business. It also appears that if that item is added to the ordinary earnings of the company, and we agree with the referee that it should be so added, its profits will be increased to about 5.5 per cent. Surely this is not confiscation, and the rate complained of is, at least to a considerable extent, remunerative.*"

BURDEN OF PROOF TO SHOW PROPER APPORTIONMENT.

In the case of *Steenerson v. Great Northern*, 69 Minn. 353, 72 N. W. 713, the evidence shows that there were a number of branch railroads, and one steamship line, operated by subsidiary corporations in connection with the main road, and that these subsidiary corporations were owned principally by the Great Northern. The Great Northern contended that the income and expenses of these subsidiary properties should be considered separately from the property and income of the main line. In the opinion the court expressed grave doubts as to the right of the company to insist upon having these matters separately considered, but did not feel called upon to decide the question. The court did hold, however, that the burden was upon the company to show to the satisfaction of the court that the apporportion-

ment and division between these several corporations was fairly made, and that it had failed in that case to do so. The matter is stated in the last section of the syllabus as follows :

“There are a number of feeders and portions of railroad lines which are separately incorporated, but which in fact form parts of the railway system of the Great Northern Railway Company. There is also a steamship line on the Great Lakes, and a very valuable coal mine in Montana, each of which is separately incorporated. All, or nearly all, of the stock of each of these other corporations is owned by the Great Northern Railway Company, and it or its officers manage and control all of these other corporations. The profits of each of them depend almost wholly on the division of profits on business in which it and the Great Northern Railway Company are jointly concerned, and such division is a mere matter of bookkeeping. Some of these other corporations appear by the reports of the Great Northern Company to have made very large net profits during the year in question. Held, the burden was on the Great Northern Railway Company, in this case, to show that the division of profits between it and these other corporations was fair and reasonable, and it failed to maintain that burden.”

In order that the court may see how the apportionment between these two departments is made, we quote all of the evidence from the record that sheds any light on that point :

“Witness Malone (of Denver), page 177, printed record :

Q. The eight lots would be $\frac{2}{3}$ of a block? You allow $\frac{1}{3}$ of the real estate for the electric light plant?

A. Yes, sir.

Manager Honeywell (p. 105, P. R.) :

- Q. What amount of taxes did you pay last year?
- A. In round numbers, \$10,000.
- Q. What portion of your total revenues, approximately, are derived from the gas department?
- A. Oh, I don't know. Now, for the year ending now, it is more than the electric considerable.
- Q. About what portion of the value of your plant is comprised in your gas plant?
- A. Two-thirds.
- Q. Sixty-six thousand and some dollars?
- A. Yes, sir.
- Q. What about your bond interest last year?
- A. Bond interest? About \$59,000 in round numbers.
- Q. What proportion of that is it necessary to apportion to the gas department?
- A. It would be proper to charge two-thirds of it. *The bond interest is not divided, though, on our classification into two-thirds and one-third like taxes.*
- Q. I asked you what proportion of that it is *necessary* to apportion to the gas department?
- A. Two-thirds would be proper.
- Q. What is the amount of the bonds outstanding approximately?
- A. \$1,129,600. I think that is correct.

General Manager Honeywell, (p. 119, P. R.) :

- Q. How do you separate or divide the expense of the two classes of business?
- A. The expense, except officers' expense, and by that I mean superintendent, and superintendent of manufactures, and clerical expense, and taxes, are divided accurately, just what they use, and coal is given to the electrical department and their own

oil, and an accurate account is kept of that, and some is divided one-half and one-half and some two-thirds and one-third.

Q. How do the receipts of the electrical department compare with the receipts of the gas department?

A. They are not as much.

Q. Well, what are they?

A. I do not remember the yearly receipts of the electric department, I could not tell you that.

Q. You could give me approximately, couldn't you?

A. I would hate to guess. I could give it accurately if I got the books.

Q. You will get them and put them in your answer here?

Mr. Rose: The complainant objects as immaterial.
(Not answered.)

Q. What is the value of the plant and equipment of the electric lighting department as compared with the gas department?

A. Probably about two-thirds.

Q. And that is the way you come to make a division of expenses, apportioning one-third to the electrical department and two-thirds to the gas department?

A. Yes, on the investment proposition.

President Frueauff (pp. 458-59, P. R.):

Q. Now, in the distribution of the expenses here to the two departments of this company, that is the gas department and the electrical department, have you any correction that you desire to make in your former testimony as to the justness of that division?

A. A number of the joint expenses, such as the expense of the collection department and the management, and items of that sort, where we have

avored the gas department at the expense of the electrical department, for example, in the matter of our clerical expenses, and office expenses, etc., we have apportioned it on a basis that favored the gas department and harmed the electric. Those expenses ought to be divided more among the number of consumers supplied than at present.

Q. Is the volume of clerical work dependent upon the number of services or meters?

A. Yes, sir; it follows them very closely.

Q. And if that plan had been adopted would the gas department have a greater or less proportion than that allowed here?

A. The proportion chargeable to the gas department would have been greater, and the electric department less.

Q. Can you give approximately what the increase would have been?

A. My recollection is that it has been divided one-half and one-half, while we have about twice as many gas consumers as electric.

Q. I thought it was divided in proportion one to two.

A. I am not sure about that. At any rate they have not been divided to the consumers of each class supplied; that ought to be more closely apportioned.

Q. Which department has the greatest number of consumers?

A. The gas department, very much.

Q. More than twice?

A. I can not tell you from memory. Yes, sir, more than twice.

We call attention to complainant's estimate of "Working Capital," page 248 of the printed record, which shows that the entire office equipment is apportioned on the basis of two-thirds and one-third. Also item of real

estate and buildings, page 238, showing the real estate (8 lots out of a total of 12) charged to the gas department. Also the barn on the same property. The blacksmith shop is divided equally. Now we have quoted all the evidence throwing any light on the apportionment of the property and expense between these two departments. Is there anything here which will enable the Court to tell whether there has been a fair apportionment? There is nothing here to show the receipts of the electrical department, nor is there anything to show the value of the electric plant, nor the expense of its operation. There is nothing but mere estimates and conclusions of interested parties. We therefore insist that, even though this Court should conclude that the electric department may be segregated, the burden was on the complainant to furnish all the facts, figures, and data upon which the segregation and division is based, so that the Court might form some reliable judgment as to whether or not the apportionment was properly made. This the complainant has utterly failed to do.

(2) Of the gas department separately.

But assuming, for the purpose of argument, that the two departments are to be considered separately, or rather that the property devoted exclusively to the gas department, and the earnings of that department are alone to be here considered, we shall now proceed to discuss the case upon that assumption.

The right to segregate these two departments (if it exists at all) so as to enable the complainant to withdraw from this investigation all of the property and earnings of the electrical department, imposes the burden upon the company to make full and detailed disclosure of

all facts necessary to enable the Court to intelligently determine that the apportionment of the property and expense between the two departments has been properly made. We have already cited and quoted from authorities bearing upon this point under the subdivision of this brief dealing with the right to segregate the two departments, and we refer to that portion of our brief for the quotations, citing here a few of the cases dealing specifically with the duty of complainant to make a full disclosure of all facts necessary to enable the court to decide whether or not the apportionment and division have been fairly and properly made.

Chicago & Grand Trunk R. Co. v. Wellman, 143 U. S. 339 (345), 36 L. Ed. 176 (180).

State v. Adams Express Co. (Neb), 122 N. W. 691.

Steenerson v. Great Northern, 69 Minn. 353, 72 N. W. 713.

In this respect, complainant has utterly failed. The record furnishes no data upon which to judge the correctness of the apportionment, and all we have here is the assurance of the officers of the company that the apportionment was fairly made.

But even if the division was fairly made, still we contend that the earnings of the gas department alone more than show a reasonable return upon the fair value of complainant's investment in the gas business, when such value is fairly arrived at, and when the operating expenses are confined to proper limits.

OPERATING EXPENSES, 1907.

We most emphatically take exceptions to the operating expense for 1907.

First.

The only light the record sheds upon these operating expenses is to be found in exhibit 101, opposite page 470 of the printed record. On page 9 of said exhibit (lines 913 to 917 inc.) is shown a "Summary of Operating Expenses," in which these expenses are summarized under four general heads, with references to other parts of the exhibit for the items. Following up these references, as for instance, the reference to line 1509 for the details of "General Expenses," we come to "Executive Department, General Expense," and are again confronted with more general items, such as "Executive Salaries," "General Clerical Salaries," "Incidental Expenses," "Legal Expense" "Promoting New Business," etc. That is as far as the record carries us into the details. This is a fair sample of the explanation made of the whole matter of operating expense for 1907, amounting to the enormous sum of \$141,924.37.

That this is not a sufficient showing to be made by a public service company when it assaults a rate as confiscatory, because it cuts down its net income below the point of reasonable compensation, is shown by the following authorities:

San Diego Water Co. v. San Diego, 118 Cal. 556
(574), 62 Am. St. Rep. 261 (275).

Chicago & Grand Trunk R. Co. v. Wellman, 143
U. S. 339 (345), 36 L. Ed. 176 (180).

State v. Adams Express Co., (Neb.) 122 N. W.

691.

It is not easy to understand, without more light on the subject, why the \$2,804.70, "Executive Salaries" in

exhibit C (line 1500) being the executive salaries for the whole year 1906, before the passage of the "dollar" gas ordinance, should grow to \$3,044.31, in exhibit D (line 1500) being "Executive Salaries" for the year ending June 30, 1907, and which covers one-half of the year 1906, and only six months of 1907; nor why "Legal Expense" \$757.43, in exhibit C, for 1906 (line 1505), should grow to \$1,151.67 in exhibit D (line 1505), which includes the last half of 1906 and the first half of 1907. And comparing these same two items in exhibit C, the whole year 1906, before this ordinance was passed, with exhibit 101, the whole year 1907, after the passage of the ordinance, we find the results as follows:

1906, "Executive Salaries" (Ex. C, line 1500)	\$2,804 70
1907, Executive Salaries" (Ex. 101, line 1500)	3,215 52
Increase first year after ordinance passed	410 82
1906, "Legal Expense" (Ex. C, line 1505)	757 43
1907, "Legal Expense" (Ex. 101, line 1505)	2,160 31
Increase first year after passage of ordinance.....	1,402 88

Nor can we understand why "Street Main Maintenance," shown at line 1300 exhibit C, for the whole year 1906, should increase from \$638 to \$1,147.28 for the year 1907, as shown at line 1300, exhibit 101.

Nor why "Collection Clerical Salaries," shown at line 1401 for 1906 as \$2,569.68, should increase for 1907 (line 1401, Ex. 101) to \$3,570.13, after the passage of this ordinance.

Nor do we understand why the total expense for the collection department in 1906, prior to the passage of this ordinance, should increase from \$6,692.61, line 1406, exhibit C, to \$8,597.75, in 1907, after the passage of this ordinance (line 1406, Ex. 101).

Second—Excessive Legal Expense for 1907.

It is apparent that the item of legal expense for 1907 is greatly excessive and is not a criterion for judging normal legal expense.

For all of 1906 (Ex. C, line 1505)	
it was	\$ 757 43
For the year beginning July 1,	
1906 (Ex. D, line 1505) it was.	1,151 67
For the entire year 1907 (Ex. 101,	
line 1505) it was.....	2,160 31

We therefore claim that there should be a deduction from the gross expense for 1907 of at least \$1,000 for excessive legal expenses.

Third—Excessive Charge to 1907 for Rebuilding Benches.

In the latter part of the year 1906 there were some extensive bench repairs made amounting to \$9,000, and \$4,022.24 of this amount was charged to 1907 (Wiggins, p. 445, P. R.). This is explained by Honeywell (p. 251, P. R.). Mr. Honeywell was not certain of the amount, but explained the method of charging it up. It will be seen that there was charged to 1907 almost one-half of the entire cost. Mr. Honeywell testified that he thought they intended to spread this expense over four years (p. 252, P. R.) so that, even according to his testimony, the proportion of the \$9,000 which should have been charged to the year 1907 should have been one-fourth of \$9,000 or

\$2,250, instead of \$4,022.24, which would be an excess charge to that year on this item of \$1,772.24.

But we call attention to the fact that the life of the metal or main part of these benches would be fifteen years, and this expense should have been spread over a period of ten years at least, which would make the charge to 1907 excessive by about \$3,000.

Fourth—Excessive Charge to 1907 for Rebuilding Station Meter.

The station meter was practically rebuilt in 1907 (pp. 152, 163, P. R.). This cost \$2,500, and was charged to the operating expenses of 1907 (Honeywell, p. 465, P. R.). Mr. Honeywell, on the page last cited, testified that the life of this item would be fifteen, sixteen, and possibly twenty years. That being the case, at a very conservative estimate, there should not have been charged to 1907 to exceed \$250, and the charge made was excessive by \$2,250.

That extensive replacements, such as the rebuilding of the benches and the station meter, should be spread over a period of time equal to the life of such improvements has been settled by this Court, in *Illinois Cent. R. Co. v. Interstate Commerce Com.*, 206 U. S. 441, 51 L. Ed. 1128, where the rule is stated thus:

“Expenditures for permanent improvements and equipment should not be charged to current or operating expenses of a single year for the purpose of testing the reasonableness of an increased freight rate.”

Fifth—Shortage in Coke and Tar Residuals for 1907.

Professor Bemis points out from the company's books that it failed to give credit for coke and tar re-

siduals to the amount of \$3,346 (p. 371, P. R.). This should be credited to the operating expense of 1907, and would reduce operating expense by that sum.

RECAPITULATION OF EARNINGS AND OPERATING EXPENSE FOR
1907.

Gross earnings for 1907.....	\$215,776	20
Total operating expenses as given by the com- pany (line 911, Ex. 101).....	141,924	37
<hr/>		
Net earnings as given by company (line 912, Ex. 101).....	\$ 73,851	83

To which should be added the following items:

Excess charge for operating expense for rebuilding benches.....	\$3,000	00
Excess charge for rebuilding meter.	2,250	00
Shortage in credit of coke and tar residuals	3,346	00
Excess on legal expenses.....	1,000	00
<hr/>		<hr/>
Net earnings of gas department, 1907 (as corrected)	\$83,447	83

From the above should be deducted such sum as the court shall find proper to be set aside for a depreciation fund, which we contend should be arrived at upon the theory of Professor Bemis referred to in an earlier part of this brief. The items upon which this should be figured are as follows:

(a) Coal gas apparatus	\$ 34,870	50
(b) Water gas apparatus.....	14,965	45
(c) Buildings	24,643	00
(e and f) Mains under pavement and dirt streets	63,956	18
(g) Gas service pipes.....	57,344	23
(h) Gas meters	27,212	18

(k) Engineering expenses	4,278 40
(l) Contingent expenses	12,835 20
(n) Cost of organization	3,000 00

Total.....\$243,105 14

Assuming that the average life of the above-mentioned items is twenty years (or, which is the same thing, that depreciation takes place at the rate of 5 per cent per annum), it would be necessary to ascertain what sum per annum set aside at sinking fund rates, say 4 per cent compound interest, would yield the above sum of \$243,105.14 at the end of twenty years. It will be seen that \$8,000 set aside annually, and placed at 4 per cent compound interest for twenty years, will produce substantially a sufficient sum to replace all of the above items.

Regardless of whether Professor Bemis's theory is the correct one or not, the company in 1906, before this suit was in contemplation, arrived at the conclusion that \$8,000 was the proper sum to set aside for a sinking fund for the gas department, and we believe that we are now justified in following the lower court, and adopting that sum as the correct figure. Deducting \$8,000 from \$83,447.84, which we have estimated as the net earnings of the gas department in 1907, we have \$75,447.83, as the net earnings of the gas department for that year, after deducting \$8,000 for said depreciation fund. If we are correct in our estimate of the present replacement value of the property of the complainant used in the gas department alone, at \$298,089.23, and if we have arrived at the correct amount as the net earnings of the company for 1907, as above stated, namely, \$75,447.83, it only remains to ascertain what the per cent of the net earnings of the company were during that year upon the value of

its property as above estimated. As we figure it, the net earnings of the company for 1907 were over 25 per cent upon the fair valuation of their property, after setting aside \$8,000 for the reconstruction fund. If we add to the value of the property a franchise value of \$40,000, that being two-thirds of the alleged sum included by the city in the tax lists for 1907, the value of the property of the defendant would be, with that added, \$338,089, and the net earnings as above stated would produce over 22 per cent upon the value of the company's property, including \$40,000 for franchise. The cut of twenty cents per thousand provided by this ordinance would have reduced the net income of the company for 1907, upon the same sales, by \$35,873, which would have left the net earnings for that year \$47,574, assuming that the reduced rate would not have increased the sales. This would still have yielded the company practically 16 per cent upon its investment, if nothing had been set aside for the reconstruction fund, and excluding franchise value; but including \$40,000 franchise value it would be over 14 per cent. If we go further, and take off \$8,000 for the reconstruction fund, we have left \$39,574, as the net earning for the same sales, at the \$1 rate, and this would be over 13 per cent upon the actual value of the company's investment, if we exclude franchise value, and over 11 per cent if we allow \$40,000 for franchise value.

PROBABLE EFFECT OF NEW RATE.

It is quite probable that the effect of the reduced rate would somewhat reduce the earnings of the company during the first year, but all experience shows and this Court has recognized in many cases hereinbefore cited, that the probable effect of a reduced rate on such commodities as gas would be to greatly increase the consump

tion without a corresponding increase of expense, and that in time the increased consumption of gas, resulting from the reduced rate, would be sufficient to more than overcome the amount of the reduction.

Professor Bemis, testifying in relation to this subject (p. 362, P. R.) said:

"I have studied the effect in scores of companies, that is I have studied the effect in every company in Massachusetts in the last twenty years where I have had an opportunity in their files to study it, the files of the gas commission. . . .

"Ordinarily the year after the reduction made the profits are found not to have fallen, not over one-half of what one would have expected from the basis of the previous year's business. That is, suppose a reduction were made in 1908, the net earnings of 1909 have not fallen more than one-half as much as you would expect from the conditions of business in 1907, because there is such an increase in output from the reduction in prices, usually without a corresponding increase of expense. . . .

"I found the general result was that a decrease of 20 cents would mean a decrease in net earnings only from 10 to 15 per cent per thousand feet in the following year."

An on cross-examination (p. 390):

"What I have observed was that a decline of 20 cents in price would generally mean a decline in profits of not over 15 cents, owing to the large increase in business; and the second year it would be a decline of not over ten cents usually. . . . It is not a precise mathematical rule; it would depend upon the energy of the company in following it up."

As Mr. Honeywell testified, the company voluntarily reduced the rate \$1.35 net, after allowing discount for

prompt payment, or \$1.50 without the discount, to \$1.20 per thousand (pp. 173-77, P. R.). It will be seen that the net rate for gas from July, 1900, to June, 1904, was \$1.50 for light and \$1.25 for fuel, and from the latter date the net rate has been \$1.20 for both.

The following table (Ex. 122) shows that, notwithstanding said reduction, the net earnings very greatly increased :

Year	Cubic feet of gas sold	Average net price per 1000	Gross gas earnings	Operating expense	Net earnings
1902...	75,690,800	\$1 3833	\$104,766 66	\$ 74,164 96	\$30,601 70
1903...	98,343,284	1 3664	134,471 06	81,552 79	52,888 27
1904...	117,429,858	1 3015	152,846 15	101,472 85	51,373 30
1905...	143,690,700	1 2086	173,619 03	105,421 95	68,197 08
1906...	153,663,600	1 2090	185,778 26	127,049 24	58,729 02
1907...	179,366,300	1 2031	215,776 20	141,924 37	73,851 83

District Judge Munger in his opinion in the case at bar referred to this matter in the following language:

"The record shows that in June, 1904, complainant voluntarily reduced its rates from approximately \$1.50 per thousand to \$1.20, and the amount of gas consumed and net profits resulting considerably increased. The inquiry in cases of this character is not alone what has complainant theretofore earned, but it is what will be the effect of the ordinance reducing the rate upon the future net earnings of the company, and it devolves upon complainant to show, not that the past rates have not produced a reasonable return, but that the rate prescribed by the ordinance will not in the future produce a reasonable return."

In *Wilcox v. Consolidated Gas Co.*, *supra*, this Court, at page 51 of the opinion, recognized the strong probability that the earnings would increase under the reduced rate as a factor to be considered.

WHEN RATES ARE CONFISCATORY.

Rates may be unreasonable and yet not confiscatory.

Railroad Commission v. Cumberland T. & T. Co.,
212 U. S. 414 (p. 420), 53 L. Ed. 577 (p. 580).
San Diego Land Co. v. Jasper, 189 U. S. 439, 47
L. Ed. 892.

"It does not necessarily follow that a schedule of maximum freight rates is confiscatory and unconstitutional because it fails to yield to a railroad company a reasonable return on the investment. Such rates must be reasonable, not only to the company, but also to the public, and the fact that they do not prove remunerative to a new road built through a sparsely settled country, where there is at present little local business, does not require the few people and the small business to pay such rates as will make the road immediately profitable to its stockholders."

Southern Pac. v. Bartine, 170 Fed. 727.

ABNORMAL SHOWING FOR 1907.

We think there has been a studied effort, on the part of some of the officers and employees of the company, to make a showing to uphold the contention that the rate imposed by this ordinance is confiscatory, that is not warranted by the facts. If these matters were unintentional mistakes we would pass them over, but we do not feel that such was the case. In the use of the company's books for 1906 and 1907, it was necessary to show the present, or replacement cost, at such a figure as would, at 8 per cent, yield a net return of about \$75,000. It would take a valuation of \$900,000 to meet that requirement. The company's expert, Malone, gives

the valuation, which he thinks is correct, to cover replacement cost of the entire gas plant, which he recapitulates upon page 236 of the printed record. He places the total at \$904,572.61.

Let us examine his testimony. In the cost of organization put by him at \$24,950 (p. 236) we find that he included \$10,000 for "incorporation expense in obtaining subscriptions for bonds" (p. 242, P. R.). Then, under number 8 of the "Recapitulation" we find a charge of 20 per cent for obtaining money, computed upon all preceding items, including the \$24,950 above mentioned, which, as we have shown, includes the \$10,000 as a *cost of obtaining bond subscriptions*. The duplication here involved has been pointed out and explained in our discussion of the items "Cost of Organizing Company" and "Cost of Obtaining Money."

Again, he says the cost of service pipes to this company (p. 182, P. R.) is \$13.50 each, but when he itemizes it, he puts the cost of pipe at \$30 per ton. Vice-President Frueauff puts it at \$39.85 per ton. The part of the company's books in evidence does not show the cost per ton of this pipe, but under "Net Cost" at line 1755, page 18 of exhibits C and 101, respectively, is shown the cost of the average gas service to be \$8.27 in 1906, and \$8.55 in 1907, which, for some unknown reason, disagrees with Mr. Malone's figures. On line 1756, on page 18, exhibit 101, the total net cost of gas service pipes for "last year" (1906) is set down as \$13.06, whereas the books for the year previous show it to have actually been \$8.27 (Ex. C, p. 18, line 1755). We can not understand this system of accounting.

Mr. Malone accounts for a 150-horse-power boiler, erected complete, and stack \$2,225, which was never installed (p. 164, P. R.). He also puts in \$13,184 for meter connections at \$2.25 each (p. 81, P. R.), and stands corrected by Manager Honeywell's testimony that the consumer pays all of this but \$1 (p. 166, P. R.), which makes the item \$6,305 as found by the trial court.

Mr. Malone says it costs 20 per cent to obtain money. If he means it will cost 20 per cent of the par value of the Lincoln Gas & Electric Light Company's 5 per cent bonds to sell the same at par, we will agree with him; but if he means it costs 20 per cent to sell the securities of any fully paid stock of a public service corporation, organized on a fully paid basis, we most emphatically take issue with him.

Again, going to the company's books, as shown by exhibit 101, the matter of the handling of tar and coke residuals for 1907 is a work of art. On page 10 of exhibit 101, at line 1008, the cost of manufacture of coal gas is credited with \$21,537.73 for coke, breeze, and tar residuals. Coke stock, on page 25 of the same exhibit, at line 2326, shows, "Sold and Used" under "Total Cost" \$25,247.79, against which can be massed the entire "Coke Stock," total expense, at line 2322, of \$2,902, which gives us net from coke and breeze, sold and used, \$22,345.79. Then, going to tar stock on the same page of the exhibit, at line 2344, we find "Tar Sold and Used" amounting to \$3,297.99, against which the entire tar stock expense, at line 2342, \$617.89, can be massed, leaving net \$2,680.10 to go to the credit of tar residual. This, added to the \$22,345.75 from the coke and breeze gives a total of \$25,025.89 to be credited to the cost of manufacturing coal gas, instead of \$21,537.73, a difference of \$3,488.16

in the net amount applicable to the payment of interest, dividends, etc. Nor is this \$3,488.16 anywhere put back into the receipts. It seems to have vanished, so far as the public is concerned.

Again we have the company's expert Malone swearing that the plant is worth at present \$550,272 (p. 236, P. R.), and Vice-President Frueauff saying that it has all practically reached the point where it will have to be replaced on account of age and inadequacy (p. 217, P. R.)

Exhibit No. 118 shows the following comparisons as to water gas:

	1905.	1907.
Cubic feet water gas made....	107,612,100	132,930,600
Cost per M cubic feet.....	40.95c	39.51c
Charged for gas-making labor...	\$2,147 24	\$3,737 66
Charged for purifying labor, ex- penses and repairs.....	157 68	799 10
Charged for purifying material..	210 00	392 04

The output increase 1907 over 1905 was 23½ per cent. Applying this ratio of increase, the charge in 1907 for the several items mentioned above should have been:

Gas-making labor....	\$2,651 84	instead of	\$3,737 66
Purifying labor, etc..	193 75	instead of	799 10
Purifying material ..	259 35	instead of	392 04

From the above, it will be seen that the normal increase of output results, so far as *water gas* is concerned, in a reduction in cost per thousand feet, notwithstanding an abnormal increase in amount charged for "gas-making labor," "purifying labor, expense, and repairs," and "purifying material."

The gas company has introduced no evidence to explain these remarkable advances in the elements of cost of water gas, two of which are labor costs. On the other hand, the evidence of Mr. Wiggins (p. 446, P. R.) that he found from examination of the company's pay rolls only a very slight increase in the cost of labor since 1905, stands undisputed and unchallenged.

How, then, can these extraordinary advances in cost be explained upon any other theory than that there has been a systematic design to keep up the apparent cost of manufacturing gas by some manipulation of the pay roll distribution, so as to favor *electricity or construction, at the expense of the gas department.*

Exhibit No. 117 shows the following comparison as to coal gas:

	1905.	1907	Incr.
Coal gas made (in cu. ft.)	59,427,300	69,789,600	17%
(Ex. 120)			
Tons of coal carbonized...	6,112	7,098½	16%
Retort house labor.....	\$3,113 26	\$5,708 18	83%
Purifying labor Exp. and			
Rep.	160 94	386 68	140%
Sundry labor	838 56	1,303 51	55%

Applying the ratio of the output increase to the labor items mentioned above, the charges in 1907 should have been:

Retort house labor.....	\$3,642 51	instead of	\$5,708 18
Purifying labor, etc.....	188 30	instead of	386 68
Sundry labor	981 01	instead of	1,303 51

It will be seen that the essential factors of "coal gas made" and "tons of coal carbonized" are in harmony with one another as regards ratio of increase.

Mr. Wiggins testifies (p. 446, P. R.) that the rate of pay of retort house labor had not materially increased from 1905 to 1906, and not at all increased from 1906 to 1907. He also testifies (p. 447, P. R.) that he was informed by Mr. Honeywell that it had been comparatively easy to get steady, experienced men for the past year or so, owing to the installation of machinery at nearby plants, which threw many good men out of work.

We should expect the total cost of generating coal gas to increase in less proportion than the increase in output, barring any increase in the cost of labor or of gas-making coal.

We have already referred to the testimony of Mr. Wiggins that the increase in the cost of labor was but trifling and that the company had been able to obtain experienced men thrown out of work by the installation of machinery at nearby plants.

The gas reports show the cost of coal carbonized for the years 1905 and 1907 to have been \$5.09 and \$5.955 per ton, respectively, an increase of 17 per cent. Adding this to the increase in output of 17 per cent, we find that the increase to be expected in the cost of generating coal gas in 1907, over 1905, should not exceed 34 per cent, while exhibit 117 shows the cost of generating coal gas to have increased from \$18,724.85 in 1905 to \$36,516.26 in 1907, an increase of 95 per cent.

Exhibit 120 shows the increase in output in 1907 to have been 17.43 per cent over 1905, yet, with the exception of "Economizer Royalty" and "Retort House Expense," two very small items, we find a very marked

increase in the cost of every element entering into the cost of generating coal gas. For example:

	1905.	1907.	Increase.
Bench fuel	\$ 3,499 31	\$5,347 42	52.8 %
Retort house labor.....	3,113 26	5,708 18	83.85%
Bench repairs	1,255 62	4,022 24	220 %

On the basis of the output increase, the charges for the above items in 1907 should have been:

Bench fuel	\$4,094 19	instead of	\$5,347 42
Retort house labor.....	3,642 51	instead of	5,708 18
Bench repairs	1,469 07	instead of	4,022 24

On the other hand the credit given to coal gas for the residuals of coke and tar show no such increase. In 1905, the total credits to coal gas for residuals is \$20,738.18, and 1907, \$21,785.99, an increase of but 5 per cent, while the normal increase on the basis of coal carbonized would be 16 per cent.

We add to the amount credited to residuals by the company on its books, the amount of residuals above mentioned as not accounted for of \$3,240, making the proper total credit for residuals \$25,025.73, which is about the normal increase over 1905 of 20 per cent.

Exhibit 119 shows the cost of "Distribution Expense," "Collection Department," and "Executive or General Expenses." In this also we find that the increases in labor items are entirely out of proportion to the increase in the output. This is illustrated in exhibit 121, lines 21 to 26, inclusive. The increase in mixed gas made in 1907 over 1905 is 21.36 per cent. The item, "Reading Meters," shows an increase of 36 per cent, "Collection Clerical Salaries" shows an increase of 70

per cent, "Outside Collections" an increase of 53.7 per cent and "Executive Expense" an increase of 46.6 per cent. No explanation has been offered by the gas company for these increased ratios, excepting the item of "Legal Expenses," included in "Executive Expense."

The above-mentioned items as charged are as follows:

	1905.	1907.
Reading meters	\$ 699 38	\$ 952 10
Collection clerical salaries.....	3,153 27	5,355 20
Outside collections	461 54	709 63
Executive department expenses....	5,899 20	8,636 30

WASTE OF GAS AND TAR.

Professor Bemis points out certain waste and want of economy in the manufacture and distribution of gas, to which we desire to call the attention of the court.

In the first place, there has been a failure on the part of the management of the company to save all of the tar residual. Professor Bemis testified that all other companies save substantially twelve gallons per ton for every ton of coal carbonized, whereas this company has been saving but eight gallons (p. 360, P. R.).

The company's witnesses admit that a large quantity of tar was lost because of inadequate storage facilities (p. 295, P. R.).

Proper care of the tar residual would raise the value of that item 50 per cent over the amount actually credited to 1907. In other words, the saving on this one item would have been \$2,580 for that year in excess of the amount credited.

Another large item of waste is that of gas leakage. The leakage of this company from its mains was 16.56 per cent of the gas manufactured in 1906 (p. 369, P. R.), and the percentage of leakage from the mains of all gas manufactured in 1907 was 11.84 per cent (p. 369, P. R.). The normal leakage for any properly constructed and carefully operated plant is from 5 per cent to 6 per cent (p. 369, P. R.). This loss from excessive gas leakage cost this company (according to its books, \$12,301.84 for 1906 (line 1255, p. 12, Ex. C., P. R.), and \$9,947.75 in 1907, (line 1255, p. 12, Ex. 101, P. R.). If this excessive leakage had been saved, that is to say, if the leakage had been normal in 1906, this saving alone would have reduced the cost of the manufacture of gas two-thirds of \$12,301.84, or \$8,100, and in 1907 it would have reduced the cost of the manufacture of gas one-half of \$9,947.75, or \$4,973, which saving would have affected the net earnings of the company for those years in those amounts, respectively.

This matter of excessive gas leakage has a direct bearing upon the present inadequacy of the 2-inch gas mains, a matter to which we have called the attention of the court in that portion of this brief which refers to depreciation. The size of the pipe being insufficient to carry the quantity of gas necessary to serve the patrons upon those particular lines, makes it necessary for the company to keep up excessive pressure on the entire system, which forces the gas through the joints and leaks in the pipes, thus producing the abnormal leakage referred to. Not only does this cause excessive leakage, but it increases the gas bill of every consumer without corresponding benefits. (Professor Bemis, pp. 368-69, P. R.).

On the basis of the increase in output of mixed gas in 1907 over 1905, the charges for the above-mentioned items in 1907 should have been :

Reading meters	\$ 848 90	instead of \$ 952 10
Collection clerical salaries	3,826 80	instead of 5,355 20
Outside collections	560 00	instead of 709 63
Executive dept. expense..	7,159 44	instead of 8,636 30

We submit that the foregoing comparative tables, together with the many discrepancies and duplications heretofore pointed out, indicate that there was a studied effort on the part of the officers of the company, after the passage of the dollar gas ordinance, to make a showing in the expenses of 1907, which would result in condemning that ordinance as establishing a confiscatory rate. There is no other hypothesis upon which these things can be explained.

OTHER POINTS MADE AGAINST THE DOLLAR GAS ORDINANCE
CONSIDERED.

(a.)

Gas Quality Ordinance.

The fact that the standard of quality was raised by a prior ordinance, whereby the cost of manufacture was increased, is not important, because the 1907 receipts were earned under said gas quality ordinance, and, besides, the increased cost of manufacture is included in the operating expense, and comes out of gross receipts.

See *Wilcox v. Consolidated Gas Co.*, *supra*, on page 523 of opinion.

(b.)

ALLEGED UNPROFITABLE CONSUMERS.

It is claimed by the complainant that this ordinance is void because it makes it necessary to sell to small consumers at a loss. In answer to this we say:

First.

The flat rate of \$1.20 per thousand was voluntarily made by the company and was below the maximum fixed by the then existing ordinance.

Manager Honeywell testified (p. 177, P. R.):

Q. The present rate you are charging is a voluntary rate?

A. Yes, sir.

Q. And there is no ordinance requiring you to charge a flat rate?

A. No, sir.

Q. I mean no ordinance other than the one being enjoined in this suit?

A. That is correct, none other than the dollar gas ordinance.

Q. Prior to the passage of this ordinance that the complainant has enjoined in this suit there wasn't any ordinance?

A. There was an ordinance of 1889; that was the first ordinance.

Q. What did that ordinance allow you to charge?

A. That allowed us to charge \$1.35 net for fuel and a sliding scale on the light until both got the same.

Q. And then the company has voluntarily reduced that rate to \$1.20 for both fuel and light?

A. Yes, sir, we have kept under the ordinance all the time.

Q. You have voluntarily charged a less rate than the ordinance permitted you to charge?

A. Yes, sir.

Vice-President Frueauff, while attempting to show the great loss on small consumers, admits that he would not attempt to enforce a system of rates that would make all small consumers profitable, and that absolute equity and equality is impossible (see p. 229, P. R.).

Second.

This Court will not concern itself with the matter of alleged discrimination between customers, nor as to whether the new rate might operate to require some customers to be carried at a loss, so long as the rate will yield a reasonable rate of return on the entire business.

Wilcox v. Consolidated Gas Co., 212 U. S. 19, 53 L. Ed. 382.

Minneapolis, etc., R. Co. v. Minnesota, 186 U. S. 257, 46 L. Ed. 1151.

Atlantic, etc., R. Co. v. North Carolina Corp. Com., 206 U. S. 1, 51 L. Ed. 933.

Northern Pac. R. Co. v. North Dakota, 216 U. S. 279, 54 L. Ed. 624.

St. Louis R. R. Co. v. Gill, 156 U. S. 649, 39 L. Ed. 567.

People, ex rel. v. Alton Ry., 176 Ill. 512, 52 N. E. 292.

Delaware St. Grange v. N. Y. R. N. Co., 3 Inter. St. Com. Rep. 554.

Steenerson v. Great Northern, 69 Minn. 353,
72 N. W. 713.

CONCLUSION.

And now at the close of this brief we take the liberty of quoting again the language of Mr. Justice Holmes in San Diego L. & T. Co. v. Jasper, 189 U. S. 349 (441), 47 L. Ed. 892 (894) :

"In a case like this we do not feel bound to reexamine and weigh all the evidence, although we have done so, or to proceed according to our independent opinion as to what were proper rates. It is enough if we can not say that it was impossible for a fair-minded board to come to the result which was reached."

We submit that the record in this case not only fails to show that the rate complained of, if enforced would reduce the earnings of the complainant to the point of confiscation, but on the contrary, we think it apparent from a fair consideration of the entire record, and when a reasonable present valuation is placed upon that portion of complainant's property which is devoted to the gas business, that the company is now earning, and would continue to earn, under the new rate, an income which would justify still further reduction. At all events, the record does not disclose a case which will enable this court to say that the new rate would be confiscatory beyond all doubt, and that it was impossible for a fair-minded city council to come to the result reached. We earnestly contend, therefore, that under the prior decisions of this court, which we have herein cited, the bill should be dismissed, and com-

plainant should be required to give this rate an actual test, before the court should be asked to set aside the ordinance as unconstitutional.

Respectfully submitted,

FRED C. FOSTER

City Attorney,

AND

WILLIAM M. MORNING,

Solicitors for Appellees.

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SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1911

NO. 83

THE LINCOLN GAS & ELECTRIC LIGHT COMPANY,
APPELLANT,

vs.

THE CITY OF LINCOLN, ET AL.

SUPPLEMENTAL AND REPLY BRIEF OF APPELLANT.

I.

Points on Which the Parties Concur.

The briefs indicate that counsel for appellee concur with appellant upon the following points:

1. That appellant has an inviolable, constitutional property right to a just and fair return on the reasonable value of the property used for the public service. This point is so well established by the repeated judgments of this court, that it is not open to controversy. Its extended presentation at this time would be little less than an affront.

2. That the sum upon which the appropriate rate of return on capital must be computed is ascertained by an appraisal of the present value of appellant's properties; and in making such appraisal, it is appropriate to consider not only the naked replacement values, but also the original cost, the extent

of developed patronage, present market values, present conditions of the plant, elements of depreciation and appreciation, and any other items indicating or aiding in the ascertainment of present actual values. The item of discount from the principal of outstanding bonds, otherwise termed "cost of obtaining funds" is thus excluded as a factor in the appraisal of present property values. This item is expressly surrendered in appellant's brief, so that the discussion of it in the brief of the appellee, may be disregarded.

3. That the rate of annual depreciation chargeable against the revenues before anything can be applied to a return of earnings on capital investment, is measured by five per cent. of the present value of all the properties used for the service, with the exception of real estate. This item represents an essential and unavoidable part of the cost of the service and is an incident of the use of appellant's properties for the service. Counsel for the City have, however, fallen into gross and inexcusable errors in their arithmetical calculations of the item of depreciation. In appraising property values to ascertain the capital upon which appellant is entitled to receive a fair and just return of profits, counsel have calculated this rate of depreciation *against appellant* upon the full cost of the *new equipment*, notwithstanding a material portion of its expectancy has already run. In ascertaining the sum requisite to *compensate appellant* for this item of decline in its property values from use in the service, counsel compute the same per centum of depreciation upon the depreciated or *present value* of the equipment. This glaring fault obviously operates to leave a very material part of the loss involved in the decline of property values from their use, uncompensated; and the adoption of the City's computations would, to that extent, be a clear confiscation of appellant's property. It is, perhaps, a coincident, rather than a trick, however, that the arithmetical errors tend to inflate the net revenue applicable to capital earn-

ings, and to favor the City; while unduly disparaging appellant's property values, and leaving uncompensated a large part of appellant's losses in property values caused by depreciation from their use in the service.

4. That where a prescribed rate is shown to be inadequate and confiscatory in character, submission to the unlawful rate and incurring of the inevitable and irreparable damages incident to putting it into effect, is not a condition precedent to the granting of equitable relief by injunction to arrest the rate assailed. If the inadequacy of the rate is in fact shown with sufficient clearness to persuade the judgment of the court, the inviolability of appellant's constitutional property rights will be declared and enforced as a matter of course. The contrary suggestion, that a surrender of a constitutional right should precede the appeal to a court of justice, is illogical, out of harmony with our institutions and our system of justice, and has never been sanctioned by this court.

5. There is, apparently, no contention on the part of the City against appellant's claim that in the circumstances and conditions attending the operations of this particular public utility at Lincoln, Nebraska, the lowest point to which its rate of return could be reduced, is eight per cent. upon its capital actually employed in the service, and that a reduction of earnings below that point would be confiscation. It is true the point is not specifically conceded in the brief, but the rate of eight per cent. appears to be assumed throughout the presentation of the City's argument and is nowhere assailed.

6. It appears further to be conceded by counsel for the City that if this court approves the findings of the Circuit Court touching the valuations of appellant's property and the revenues derived from the operation of its plant, it will then be necessary to adjudge the rate of one dollar per thousand feet of gas to be inadequate and the ordinance prescribing it void. The presentation of the City's cause in this court

assumes the burden of still further disparaging the values of appellant's property below the point found by the Circuit Court, and also of inflating the net revenues approximately \$10,000 beyond the sum found by the Circuit Court. By this double process of disparaging property values and inflating net revenues beyond the point attained in practical operation, counsel for the City contrive to present a showing of a theoretical rate of return on invested capital above 5.2 per cent., found by the trial court to have been the return under the rate of one dollar, upon the actual operating experience of 1907, which was the most favorable operating period, and equalling or exceeding the rate of eight per cent., which seems to be conceded as the lowest admissible rate.

II.

The values found by the Circuit Court establish the inadequacy of the dollar gas rate.

The points conceded and uncontroverted, above mentioned, make it obvious that the rate of one dollar for gas in Lincoln, when tested by the lower court's findings, is inadequate and clearly confiscatory. The values of appellant's properties used for the service, as found by the Circuit Court to aggregate \$566,073.59, or as confessed by the answer to be \$500,000, are not permitted to yield any fair or just return by the rate of one dollar prescribed by the ordinance in contest. Upon the former valuation the confessed rate of annual depreciation amounts to upwards of \$28,000, and upon the latter sum, to \$25,000. According to the court's valuations, the charge of \$8,000 against revenues for the item of depreciation, was less by the sum of \$20,000 than the real cost of that item of the service; and on the valuation conceded by the answer, there was a deficiency in the charge of the same item against the

net revenues, of \$17,000. When this item of the cost of the service is fully compensated out of the revenues, the residue applicable to earnings on the ascertained capital of \$566,073.59 is but \$9,978.57. This sum is less by \$1,342.90 than a two-per cent. return upon the capital found by the Circuit Court to be actually employed in the service. It was only by the failure to fully compensate appellant for depreciation as an element of the cost of the service, and by eliminating all of this element of cost except the fractional part of \$8,000, that the colorable earnings applicable to return on capital were inflated to \$29,978.57 in 1907, the most favorable year of appellant's operation. (Opinion of Munger, D. J., printed record p. 43.) Even this inflation, the Circuit Court found, only enabled the rate of one dollar to yield a return of 5.2 per cent. based on the actual operating experience of that year.

It is also evident that a conceded or established right to an eight-per cent. annual earning on capital would, of itself, establish the inadequacy of the rate of one dollar, if the findings of the lower court touching values are approved on this appeal. The rate of 5.2 per cent., which the Circuit Court found would be available as capital earnings when depreciation is allowed at the reduced sum of \$8,000, is less than two-thirds of the admitted minimum rate of eight-per cent. earnings. The net revenues requisite to produce a return of 5.2 per cent. must be increased by more than one-half in order to provide a sum requisite to yield a return of eight per cent. The trial court thought if the rate had not been enjoined, it was within the possibilities, at least, that the revenues shown by the actual experience of operating under the old rate of \$1.20 might have been increased sufficiently to add eight-tenths of one per cent. to the rate of return earned by operating under the higher rate. No inference can be indulged, however, and none was indulged by the lower court, that submission to the rate complained of would have operated to increase

the net revenues applicable to capital earnings by more than fifty per cent. If the basic rate of return must be figured at eight per cent., the calculations of the lower court based upon a six per cent. rate, will then be inapplicable. The holding that the ordinance might have yielded, at the most, six per cent. is in fact a holding that it could not by any possibility, have yielded eight per cent.

The City's only avenue of escape from this logic is to captiously disparage the values of appellant's properties, and to concurrently maintain the "sinking fund" method of financing depreciation, by which the greater portion of this inevitable item of cost of the service remains uncompensated and is boldly confiscated. Counsel's attempt to accomplish the requisite disparagement of values is no doubt well intentioned; but it is, nevertheless, crude in its processes and adopts one standard of *inflating depreciation* to depress property values, and another standard of *depressing depreciation* to inflate net revenues applicable to capital earnings. One shocking exhibition of this fault is the table on page 55 of the brief of appellee, the computations of which we shall now examine.

III.

In the City's brief counsel have missed the correct theory of calculating depreciation from replacement values.

The table at page 55 professes to contain a correct calculation of the depreciation of appellant's plant, based upon the primary cost and the length of time elapsed, figured upon the total yearly investments in the plant. The rate of depreciation is five per cent. on the full original capital contribution, wiping out all values from capital contributions made twenty or more years since. Of the capital contributed within twenty years it is figured that there remains of that paid in nineteen years ago, only five per cent.; eighteen years ago, ten per cent.;

seventeen years ago, fifteen per cent. ; sixteen years ago, twenty per cent. ; fifteen years ago, twenty-five per cent. ; fourteen years ago, thirty per cent. ; thirteen years ago, thirty-five per cent. ; twelve years ago, forty per cent. ; eleven years ago, forty-five per cent. ; ten years ago, fifty per cent. ; nine years ago, fifty-five per cent. ; eight years ago, sixty per cent. ; seven years ago, sixty-five per cent. ; six years ago, seventy per cent. ; five years ago, seventy-five per cent. ; four years ago, eighty per cent. ; three years ago, eighty-five per cent. ; two years ago, ninety per cent. ; and one year ago, ninety-five per cent.

To lucidly exhibit the faults of this process, we briefly restate one aspect of the universal method of calculating depreciation. Appellant, on its proofs, and by argument in its brief, only claims an annual expense allowance for depreciation equal to five per cent. of the present value of its property employed in the service as depreciated by past use. This item of the cost of service is not figured on the original cost of a new plant. For example, on buildings which have been depreciated by the Circuit Court's valuations, approximately, thirty-four per cent., this item will be calculated at five per cent. on the remaining sixty-six per cent. of the replacement value of the building, which equals only three and one-third per cent. of the original cost or replacement value of new buildings. The equipment of varying ages, aside from buildings, was, by the Circuit Court's valuations, depreciated ten per cent. from replacement values; and to ascertain the annual depreciation thereon, as an element of the cost of service, we, therefore, calculate a five per cent. depreciation on the remaining ninety per cent. of the original value, which equals only four and one-half per cent. of the replacement value of new equipment. The largest part of the equipment was recently installed. It is, perhaps, just to eliminate depreciation for the year of installation, as is done by counsel for the City. The second year, or the first year after installation, there should

be an allowance of five per cent. on the full value. The third year would then begin with a depreciated present value of ninety-five per cent. of the cost, so that the five per cent. depreciation for that year is calculated upon this new or reduced principal and equals four and three-fourths per cent., only, of the cost of installation two years previous.

It is, of course, preposterous and absurd to entirely mark off and obliterate the whole value of any equipment that remains and is capable of use in the service. Every part of the equipment used in the service has some value. If the average human life be twenty years, it will still be true that the man who is past seventy, has some expectancy of life remaining. Of those insured at twenty, on a basis of average ascertained by actual experience, some will die during the year in which they are insured; others will survive beyond the age of eighty, and all who survive any given age, will still have some remaining expectancy of life.

Of the constituent parts of a great utility equipment having an average expectancy of life of twenty years, some minor parts will fail, perhaps, in the year of installation, and must of necessity be replaced; but every part that survives the first year, or any given year, has some expectancy of life still remaining—even that part which survives the age of seventy or eighty years. And each part that survives any given period has some value, depending upon its utility and its remaining expectancy. It is true the rate of depreciation is based upon the average life of the equipment. But if the very last element of value disappeared at the end of twenty years, the average life must be much shorter than twenty years. If the average life be twenty years, there ought to be left, at the end of that period, a value of approximately thirty-six per cent. of the full original cost. This suggestion is consistent with the method universally employed to compute depreciation at the fixed per centum of the present value, or the remaining por-

tion of the original value, after subtracting the accumulated past depreciation from the original or replacement value. While depreciation is calculated upon a stated fixed rate, on existing depreciated values, it will be found that if we single out and apply this principle to any specific part of the plant, the results of the calculations will exhibit a perpetually decreasing ratio as compared with the original full cost or reproduction value. The method of computing depreciation on present values, depreciated by past use, keeps still employed a substantial part of the original values for many years beyond the average life, and carries a nominal fraction of the original value out to infinity. Marking half the investment off in ten years, three-fourths in fifteen years, and all of it in twenty years, under the suggestion offered by counsel for the City, would show an average life of approximately ten years only, and is too ridiculous and absurd to be considered otherwise than as a jest. The calculations offered by the city presuppose that twenty years is the maximum life, instead of the average life.

To exhibit the results of the application of the five per cent. depreciation to any specific equipment, we here exhibit a table run out to the thirty-fifth year. It will be seen that when the first five per cent. depreciation is compensated to the company, the company will have left but ninety-five per cent. of its original investment. The following years' depreciation is computed upon a new principal representing the remainder, only, of the value. It is a curious fact that while the utility of all the equipment will some time have an end, the universal method of computing depreciation at a fixed rate on present value, if applied to any single appliance, will never entirely consume the property value. At the end of the thirty-five years an equipment rated at an average expectancy of life of twenty years, will still have remaining seventeen and one-half per cent. of the original cost or replacement value.

Table showing accumulated depreciation, and per cent. of original cost value remaining as applied to any one specific item, computed at five per cent. on present values.

Age Years	Per Cent. of Accumulated Depreciation	Per Cent. of Cost Value Remaining
1	0	100
2	5	95
3	9.75	90.25
4	14.26	85.74
5	18.55	81.45
6	22.62	77.38
7	26.49	73.51
8	30.16	69.84
9	33.65	66.35
10	36.97	63.03
11	40.12	59.88
12	43.11	56.89
13	45.95	54.05
14	48.65	51.35
15	51.22	48.78
16	53.66	46.34
17	55.97	44.03
18	58.17	41.83
19	60.26	39.74
20	62.23	37.77
21	64.12	35.88
22	65.91	34.07
23	67.61	32.39
24	69.23	30.77
25	70.77	29.23
26	72.23	27.77
27	73.62	26.38
28	74.94	25.06
29	76.19	23.81
30	77.38	22.62
31	78.51	21.49
32	79.58	20.42
33	80.60	19.40
34	81.57	18.33
35	82.49	17.51

In actual practice the five per cent. charge for depreciation during the second year, should be reinvested for replacements or betterments so as to keep the capital unimpaired. If this method is pursued, the original capital will be fully maintained without impairment from age and use and will always be employed in the service. It may result in expansion of the plant and increase of the business, but the public will profit by the resulting economies without being burdened by increased capital on which dividends must be paid. The history of the Lincoln plant shows that about every fifteen years the manufacturing plant must be remodeled and practically rebuilt on account of inadequacy combined with decay and obsolescence. That is not shown to be true, however, in respect to the distributing plant. The mains and other parts of the distributing plant do not all fail at the same time, but replacements are gradual and incidental and can be made out of a fair depreciation allowance, from year to year. The balance of the depreciation fund necessary to maintain the capital from impairment is justifiably used for extensions and development of new territory, until the periodical necessity of remodeling and enlarging the manufacturing plant arises. If at that time the whole plant has grown, while the manufacturing portion of it has decreased in value, the decrease in one part will be compensated by the increase in another part. The process of enlargement of the entire plant by increase of the manufacturing capacity will thus inevitably call for new capital when the manufacturing plant is reconstructed. Since this reconstruction permanently creates a larger plant, the added capital is justly employed and justly entitled to earn a revenue. Such has been the process of enlargement of the Lincoln plant. The original capital contributions have always remained and have never been withdrawn.

But if the method suggested in the table presented by counsel for the City, at page 55 of their brief, of computing

depreciation upon the full original cost, and on the basis of a maximum instead of an average life of twenty years, be seriously considered or held to measure the actual loss by depreciation that falls on appellant from the use of its properties in the service, then it will follow as a corollary, that five per cent. of the original cost or full replacement value of appellant's properties must likewise be charged each year against the revenues. Whatever rule be applied to measure the decline of appellant's property values from use, that same rule must be employed to fix the annual charge against revenues, requisite to counterbalance that identical loss to appellant from the same cause. Appellant can, theoretically, submit to any method of accounting for this element, that preserves a balance between the annual decline in the values of its properties from this cause and the annual charge to revenue to compensate it for that decline—provided, always, that in addition thereto appellant have a just and fair return of earnings upon an honest valuation of its present properties. Anything short of this is confessedly a confiscation of its properties and incomes.

An illustration of the City's cheerful generosity to the public in its dealings with the properties of the Gas Company, is shown at the foot of the table on page 55 of appellee's brief, by the addition of the item of \$8,000 on account of the depreciation for 1906. In figuring just revenues for that year, we must commence with the plant as it exists at the beginning of the year, before it has been deteriorated by that year's use. The ascertainment of a just return involves (1) the preservation or restoration of the capital by compensating depreciation due to that year's use, out of the revenues, and (2) the computation of just earnings on the value of the plant as it existed at the beginning of the year. In the table referred to, counsel first charged a depreciation for that year of five per cent. on the full cost of the naked plant construction. Honeywell's yearly footings of the construction account, made the basis of

this table, aggregates upwards of \$600,000. So, in calculating a straight line depreciation of five per cent. on the cost of new equipment, appellant's properties were thus depreciated during that year \$30,000, in order to reduce by \$30,000 the values on which appellant must have a just return of earnings. Having thus measured the Company's loss by decline in its property values, at \$30,000, the City, under the pretense of being entirely fair, undertakes to restore the original values as a basis for computing revenue in that year, by adding \$8,000, the figure charged against revenues by the lower court for depreciation. This juggling would deprive appellant of compensation, on account of the item of depreciation, for the difference between the two items of \$30,000 and the partial restoration of \$8,000, and would rob appellant of \$22,000. The effort to apply a scheme of building houses for the poor people of England, on a cooperative plan, without obtaining or collecting in the necessary cost of construction, that sent Fergus O'Connor to prison and to lunacy, was not more irrational or insane than the process by which the City of Lincoln is now attempting to make an inevitable item of expense or cost of the service applicable to capital earnings.

It is upon this same false and irrational basis that counsel assail, generally, the valuations found by the Circuit Court. The assault upon values, in the main, is grounded upon this false theory and makes no attempt to preserve the balance between depreciation of physical values for purpose of appraisal and the corresponding or counterbalancing item chargeable annually against revenues.

IV.

The City's brief does not contain a true exhibit touching capital contributions and the construction account of the gas plant.

The tabulated items of alleged capital contributions, on page 57 of appellee's brief, are wholly without value. They

cover only the period of time beginning in June, 1890, and wholly omit the capital represented by outstanding notes and accounts payable, at date of the hearing, amounting to \$89,000.

The larger items of expenditure devoted to the exclusive construction of the gas plant, were definitely shown by the Company's Manager, Mr. Honeywell, to have aggregated \$603,278.14, on June 30, 1907. This does not cover the working capital, nor interest, and taxes during construction, nor cost of exploiting the business, and obtaining and connecting more than 6,000 customers, all of which must, in the start, be paid out of the primary capital. The summary of the construction account of the naked gas plant is shown at pages 139 and 140, and the items appear at pages 498-579 of the printed record. The record contains no foundation to impeach the integrity of this exhibit, nor to diminish the sum total shown to have been expended for that purpose. It is true that Wiggins, the City's accountant, claimed to have discovered some errors in checking and proving the original account. But he also found omitted items, which should have been entered in the account, that would be sufficient to counterbalance accidental duplications and items of questionable propriety. Cross examined on this subject, at page 343 (printed record) Wiggins testified:

Q. There were some other expenses, aside from the naked contract price of the original construction, were there not? A. Some little, yes, sir.

Q. So that the other outside expenses would run it up—the original construction from 1873—up to the figure Mr. Honeywell gave, would it not? A. Yes, sir, I think so.

So proof that the capital is actually employed in the plant is in the record, and the showing is uncontroverted. The capital has not been withdrawn either in the form of dividends or payment of excessive interest burdens. In the main brief,

point V. (pp. 33-36), it is shown that the total withdrawals on account of capital earnings have been less than a just return on invested capital. The residue remains in the plant and adds to its value. To this point Wiggins (printed record, pp. 351-352) testified:

Q. If you don't have that handy, I will ask you another question. You don't mean to imply that the sum of \$175,000 represents,—was all the money expended by the company from its organization, to June 1890, for the purpose of construction? A. No sir, the construction in the early years was charged against revenue, every year. That is it was paid for out of the earnings or was charged off every year.

Q. So the surplus earnings of the company, in those early years was used to improve the plant? A. Yes, sir.

Q. And the earnings since 1890, that have not been applied in bond interest, have been entirely used in bettering the plant, have they not? A. Yes, sir, I should say so.

Q. You found no record of any dividend after May, 1900? A. I don't know but what I have got a little confused on that. As I recall now, up to 1887, all construction charges were written off yearly and went against the earnings and were paid for out of the profits. Since that date I don't find that there has been any charge, any direct charge, of construction against revenue.

Q. There has been no dividend since May, 1900, no stock dividends? A. No, sir, I don't think there is.

* * * * *

Q. Now, in the years previous when there was no money paid in from any other source except the receipts from patrons there was nevertheless large sums charged to construction account was there not? A. You mean when?

Q. From 1900 to the present time, shows a considerable sum charged in the construction account? A. Yes, sir.

* * * * *

Q. Then how would the surpluses, if there were any accumulations from the year 1900, be expended in case there were no dividends? A. Well there has been a large amount of them used in the payment of interest on bonds.

Q. No, I am calling for surpluses, the surpluses from the,—and over and above the operating and maintenance ex-

penses? A. Well it could not be otherwise than remain with the company. It has not been paid out in dividends.

Q. And absorbed in the betterment of the plant, and show the plant to have increased in value by the amount of the surplus would it not? A. I would think that a natural deduction.

That the plant was constructed, in part, from earnings, does not affect the right of the present owner to a fair return upon the present value of all the properties employed in the service. The mere circumstance that the owners, instead of distributing the earnings in the way of dividends, were satisfied to forego their right to these dividends and reinvest such earnings in the plant, does not give the City, to that extent, the right to confiscate the property. (*Rymer v. Butler Water Co.*, 36 Atl. 249.) In offering the suggestions under consideration counsel for the City overlooked the showing referred to, made by the City's own accountant. The proofs show, without doubt or equivocation, that the value of the physical properties employed in the gas service is much greater than the sum found by the lower court. Indeed, the lower court, as shown in our main brief, overlooked important items of an incontestable character.

V.

Comparison of Malone's estimate of replacement cost, with the Company's report of construction cost in 1906 and 1907, do not indicate that Malone's estimate was too high.

Reproduction involves the entire cost of delivering all the material on the ground, acquisition of tools, repairs, superintendence and the like.

The Gas Company has a complete departmental organization, with superintendents and foremen, a complete delivering and hauling department, with wagons, horses and barns, a

complete outfit of tools, blacksmith shop, and store room or supply department, separately maintained at large cost, the expense of which does not enter into the naked cost of material and labor embraced in the report Exhibit "C" referred to in the City's brief, at page 19 and elsewhere. The items of construction for 1906 and 1907, do not cover sufficiently the details of construction to furnish any basis of fair comparison with the engineering estimate given by Malone. On the only item of main construction, covered by both reports, there is a variance between the experience of the two years of ten per cent. on both items of material and labor.

In their efforts to disparage the value of appellant's plant, counsel are so narrow as to indicate a lack of any true conception or real understanding of the scope of inquiry necessary to arrive at the replacement value of a utility plant. Such manifest unfairness is not compatible with a right understanding of the elements proper to be taken into account in valuing such property. Technical engineering skill and experience are the best resort for actual knowledge on these questions.

Mr. JOHN W. ALVORD, a consulting engineer of wide experience, employed by cities and utility owners to ascertain values of existing plants (representing Omaha in the appraisal in question in *Omaha v. Omaha Water Co.*, 218 U. S. 202), presented a learned discussion on "going value" at the convention of the American Water Works Association at Milwaukee, June, 1909, (Proceedings of American Water Works Association, 1909, pp. 184-208.) His contribution on this subject is of great value both because of his great technical skill and learning, and because of the unprejudiced and independent viewpoint of the author. He prefaces his discussion of the subject of *going value* by the following exposition of the philosophy of reproduction:

The method of valuing a plant and property for the supply of water or other like utility, most favored by courts and

appraisers, proceeds on the theory of an imaginary duplication of the property at prevailing prices for materials and labor, less the estimated depreciation of the existing plant. This method necessarily involves as a mental process a re-creation step by step of what may be termed a *conceptual starting plant*, that being gradually built up as a mental picture by the aid of experience, local information and trained imagination, will eventually duplicate in its final form and detail the existing or going plant.

In this attempt to re-create, step by step, as a mental concept a parallel panorama of the construction of any existing plant, it is obvious that practicable working time is vital to the proper estimation of the cost. Time being always directly involved in items, such as "Interest on Investment during Construction," "Cost of Administration," and indirectly involved on other items such as "Cost of Material *Delivered*," and the "Price of Machinery *set up*," "*Concrete in place*," etc., neglect of proper time assumption at every step of the way will be fatal to a full and just duplication of values.

* * * * *

The theory of reproduction, if it means anything, means painstaking consideration of the time taken in each stage of the progress toward the completion of the structure and property, and its effect upon the resulting cost, all of which has to be mentally imagined and computed closely in accord with practical working under practical limitations by an experienced and capable mind.

A full understanding of the importance of time in valuations based on the reduplication theory will clear away some of the misunderstandings occasioned by unexpected items and will lead to a more intelligent appreciation of the reasons for and the methods of computing what have been called the intangible parts of a plant and property.

PHYSICAL VALUES.

The conception of these intangible values will be made more clear if as a preliminary we follow through some of the conceptual steps in the reproduction of the physical part of a plant. Some of these steps which are more or less self-evident may be stated as follows:

1. In estimating the cost of reproducing a plant, it is obviously important to consider the reproduction as taking place in a way that is *humanly possible*. Now, it is not humanly possible to construct a plant in the past, or in one day, or by the substitution of hindsight for foresight; therefore, if we are to avoid flights of constructive fancy, we are compelled to consider the reproduction as taking place in the near future in reasonable and workable periods of time, and without special foreknowledge other than that gained from experience with similar construction and familiarity with costs in the near past. To do other than this will not be '*reproducing*.'

2. A conceptual starting plant which is in process of being estimated must be made to pass through all the preliminary phases of mental origination as well as physical construction; it must consider the time and cost necessary to devise, conceive, design, negotiate, administer and direct, as well as the labor cost of digging and building, and the duplication which we try to imagine involves the re-creation of many subordinate structure, appliances, and much machinery which will have been removed or will have ceased to exist, but which were necessary in their time and place in order to bring about that finished condition which finally appears.

3. The conceptual starting plant must of course finally precisely accord in form, dimension and extent with the existing or going plant under consideration; in other words, the estimator has before him full-sized and life like plans and specifications furnished by the existing or going plant. This very completeness of data often tempts even experienced estimators into a neglect of the intermediate steps by which such plants are originally evolved.

4. The conceptual or starting plant should, as a matter of fairness, deal with all difficulties known to be originally encountered in constructing the existing or going plant, notwithstanding such difficulties might now be easily modified or eliminated by a forewarned intelligence.

5. The value of the conceptual or starting plant should be computed upon such prices of labor and material as it would seem safe for a prudent man to commit himself to and for such reasonable period in the near future, as experience shows will properly be required for construction. Such period in any new construction cannot of necessity be contemplated as completed

in the near past from the date of the estimate, for to consider such prices as of a period that has already passed would be taking advantage of knowledge not humanly available to the ordinary constructor. Prices in the near future, however, should of course be predicated (with good judgment) upon those of the near past, just as in any practical case of new construction.

6. Certain values are largely determined and influenced by the time assumed to be taken for construction; the following are typical examples:

1. The Preliminary Costs of Organizing and Conceiving.
2. The Interest on Investment During Construction.
3. The Administration Cost During Construction.
4. The Engineering and Supervision During Construction.
5. Delays and Contingencies During Construction.

Such items are of necessity added to the cost of the plant during construction. Some of them will in time become operating expenses, but until operating revenue is available they must be added to the invested capital.

7. The method of valuing at some present date by the reproduction theory will necessarily include all the appreciations in value which logically and properly ought to be credited to the existing or going plant, by reason of its age. Some of these appreciations are readily admitted, as, for instance, 'Increased Value of Land' due to a city's growth, but other items quite as logical are sometimes unexpected, as, for instance, the increased cost that will be necessitated in relaying pipe under pavements.

8. If appreciations are thus made necessary in the process of duplication, it is also true that on the completion of the conceptual starting plant it must be reduced in value by the measure in which the existing or going plant has depreciated through age, wear and tear, by reason of new inventions, changes in demand, growth of ideas and other fluctuating conditions. The time element here is of vital importance.

The just observations of the author above quoted, from the standpoint of a skilled engineer, indicate that the most

common error in working out the replacement problem is the undervaluation of the physical properties to the prejudice of the utility owner. In the present case it is obvious that many items of actual value for which the primary capital was necessarily appropriated were lost sight of by the Circuit Court. The Company has undertaken the difficult task of showing the fair replacement value of its properties. The City, on the other hand, has wholly shirked this responsible duty, and has left the court without any aid of independent inquiry, from its standpoint, upon this important and decisive issue.

VI.

Appellant fairly and honestly accounted for and properly distributed its total revenues covering the period of inquiry.

The proofs do not raise any question as to the integrity or accuracy of appellant's accounting system, credited by the Circuit Court. The integrity of appellant's accounting system and books of account, was vouched for by the City's accountant, Wiggins, on cross-examination (pp. 337-338), as follows:

Q. Now you have had access to the books, records and vouchers of the gas company practically since last September have you not? A. I did some work since last October, I think for about ten days.

Q. And at intervals since then you have applied to the company for access to its books and records. A. Yes sir.

Q. And you have been given fair access consistent with the convenience of the company in administering its own business. A. Yes sir.

Q. And you have checked out and approved, in a measure, the accounts of the Company? A. Yes sir.

Q. Now from your examination of the books would you say that the methods of accounting of the company seemed to be fairly accurate and conscientious? A. Yes sir.

Q. Such mistakes as you found were such as you might expect to find in any set of books? A. Yes sir.

Q. Did you find any evidence of any effort during any of the years shown in these records, of a manipulation of the books, or anything of that sort? A. I did not find anything that indicates that.

Q. So far as your examination shows the company has attempted at least to keep an honest and fair record of its business transactions? A. So far as my examination goes I would say so.

Q. And after checking those out you would feel justified in relying upon the general summaries, exhibiting the business in a summarized form? A. Yes sir, I think so.

There is no foundation in the record for the insinuations contained in the City's brief, that the expenses for the year 1907 were loaded with spurious charges. Touching the item of bench repairs, Manager Honeywell testified (printed record, pp. 252-253) as follows:

Q. Was the entire account of reconstruction of these three benches charged to operating expenses? A. It had not been, no, sir.

Q. What do you mean by that? A. I mean we put it into a special account and aimed to charge up so much for the manufacture of bench renewals, what we call bench renewals.

Q. That would be charged to operating expenses? A. It will be over a period that we estimated these benches would last.

Q. There is nothing charged to construction? A. No, sir; I think not.

Q. It is all taken from operating expenses? A. Yes, sir.

Q. And that has been the policy of your Company, has it? A. Yes, sir, except when we built absolutely new benches then it would be a Construction account. If we did not have any benches there before and started a set of benches in that would be Construction account.

Q. You would call that an addition to your property? A. Yes, sir.

Q. What book would show the amount that has been charged up to this time to operating expenses and the amount still left to be charged. A. The General ledger.

Touching the item of tar and other residuals, Manager Honeywell testified (p. 264) as follows:

Q. Are the sales of the residual, of tar and coke and breeze all credited and properly distributed to some account so that ultimately in the general distribution the proper accounts get credited for that? A. Yes sir.

Q. So that in the final result does it really make any difference at what price you charge up the residual stock in advance of realizing anything on it? A. No sir.

Q. And all of those things compensate and clear up in the final accounting according to your system? A. Yes sir.

Q. So there is no credit lost? A. If you credit your residual at too low a figure as soon as you find that out you credit them at a high figure; if you credit them too high you reduce your credit.

Q. Now does the same thing occur if you find your stock is credited for more than you have in there? A. Yes sir.

Q. You have given too much? A. Yes sir.

Q. Does that have to be adjusted from the actual expense (experience) of handling it? A. Yes sir.

Touching the item of legal expenses about which insinuating suggestions are made in the City's brief, Manager Honeywell, on cross examination, at page 331, testified as follows:

Q. I notice that the legal expenses for 1906 and 1907 are very much higher, very much higher with your company than they were during the preceding year. Is that occasioned by the fact that you have got this law suit to fight. A. I think the biggest expense was occasioned by Stewart & Munger, getting a judgment against us for \$1,500 or in getting a settlement with us for \$1,500.

Q. When was that? A. I think that was in 1906.

Q. Well do you enter those personal injury suits up as legal expenses. A. Yes sir.

Q. Well how about 1907? A. Well we had some expenses on the suit in 1907.

Mr. Frueauff, a practical gas operator, testifying, touching the possibilities of added savings or economy in residuals (p. 456) said:

Q. What is your opinion from your actual experience in this line of work, whether it is practicable or probable that this company in the year to follow, or in the year 1908, the current year, will show any saving or economy in the manufacture of gas in this plant at Lincoln, from the added saving on residuals. A. I do not think there will be an added saving from residuals in the coming year.

Q. What would be your opinion as to whether any calculation of a saving could practically be made at this time? A. I do not think there would be any warrant to assume that there would be any further saving.

Q. Practically would you personally predict that there would be any saving. A. No sir, I would not predict that there would be.

Q. And what would be your opinion as to whether the experience for the ensuing year, or the current year here when it is concluded, if it would show any economy or saving in the cost of manufacturing gas, upon the item of legal expenses alone? A. No sir, I do not believe there will be any saving. If you want my prediction, I would predict that our legal expenses would be more instead of less.

It is thus proved that no issue was presented to the lower court, and none is presented to this court by the appeal, touching the integrity of the Company's accounting of revenues, or of the integrity of the items entering into the cost of manufacture for the year 1907. The insinuations introduced by new counsel, on the appeal in this court, are gratuitous slanders and cannot operate to increase the showing of net revenue above that shown by actual experience on an honest and faithful accounting.

Counsel complain of Exhibit 101 as though it had been fabricated by the Company for the purpose of making a favorable showing in its favor in this suit. This exhibit contains the gas report for the full year of 1907. The Company, however, concluded its proof in chief, in August, 1907. So the experience of 1907 was not available to appellant when it rested its case on the proofs. The City delayed taking its proofs till a

considerable time after the close of the year 1907, doubtless in order to avail itself of the experience of the Company for that year. Meanwhile, the City kept an accountant at work on the Company's books. Being advised of what the Company's experience had been for the year 1907, the City, on opening its proofs, called for the Company's gas report of the year 1907, identified it by the Manager and offered it in evidence (pp. 250-251). Thus, the criticism of counsel is directed against the document not made up by appellant for the purposes of the case, nor offered nor introduced by appellant. To the contrary, this document was credited and called for by the City Attorney and by him offered in evidence. Until the brief of counsel was filed in this court, no one had been so bold as to question the integrity of that accounting.

VII.

The incident severely criticised in the City's brief of a variance between which Mr. Frueauff and Malone, touching the price of cast iron pipe, presents the very creditable circumstance of offering a correction of a manifest error in the testimony previously given.

Upon this item, Manager Frueauff, pages 452-453, testified as follows:

Q. Last August Mr. Malone was called as a witness here, and he seems to have made a detailed examination of the properties here in Lincoln, with a view of ascertaining what the reasonable value of the properties were from an engineer's standpoint. Did you have anything to do with the employment of Mr. Malone? A. Yes sir, I requested that Mr. Malone should come to Lincoln and gather the data together, and worked with him in preparing the estimate that he afterwards submitted.

Q. You did that as an officer of the company, as the vice president of the company? A. Yes sir.

Q. In estimating the value of cast iron and wrought iron pipe did you inform yourself as to the present market value at that time? A. Yes sir, we requested a bid in writing from the agent of the United States Cast Iron Pipe and Foundry Company, which is the largest manufacturer of cast iron pipe, quoting his prices on the various sizes delivered in Lincoln, and we used that as a basis for our estimate.

Q. And was it a good faith estimate? A. Yes sir.

Q. And from your general connection with the business and with the connection with the purchase of such supplies, did you then know the market value of cast iron pipe of the different dimensions? A. Yes sir.

Q. Have you the original bids that were given at that time? A. I have sir.

Q. Are the papers that you produced those original bids? A. This is the bid of the agent of the United States Cast Iron Pipe and Foundry Company, marked Exhibit 150.

Q. Now were you large users of this product. A. Yes sir.

Q. And were you able to purchase and do you know definitely whether you were able to purchase at as close a figure as other dealers? A. Yes sir, we were able, we believe, to get as good price as anyone purchasing that material in the quantities in which we bought it. We bought a very large order from that firm last year.

Q. Now are these prices that you have quoted in here the prices that you were absolutely obliged to pay or that any contractor would have been obliged to pay, at that time? A. Yes sir.

Q. Could those have been discounted by any contractor, from those prices, in the general market. A. That was the best price that we could get. I will say that we purchased from him last year because his price was lower than any quotation that we got.

Q. Now you may state from your knowledge of the market for that particular commodity, what was the reasonable and necessary market value of 4 inch cast iron pipe in the city of Lincoln last August? A. \$39.85 per ton.

Q. And what was the necessary market cost of 6 inch, 8 inch and 10 inch iron pipe at that time? A. Thirty eight dollars and eighty five cents per ton.

Q. And what was the necessary cost of 12 inch and 14 and 16 inch cast iron pipe at that time in Lincoln? A. \$38.60 per ton.

Q. What was the market value and necessary cost of 18 inch and 20 inch cast iron pipe at the Lincoln market at that time? A. \$38.35 per ton.

VIII.

The issue on the validity of the gas rate ordinance does not involve any inquiry into the question of electric rates. The properties comprising the gas plant are used exclusively in the separate service of manufacturing and distributing gas, and cannot be devoted to the electric or other utility.

We do not feel called upon to present any extended argument to overcome the suggestion found in the City's brief (pp. 73-89) that even a confessedly inadequate gas rate must be upheld, unless appellant shows that its capital employed in a distinct and separate enterprise does not yield a profit sufficiently large to compensate for the confiscation of the gas properties. The appliances requisite to manufacture gas cannot be employed to generate electricity. The holder and pipes by which the gas is stored and distributed cannot be used as conduits of electricity. The meters by which the gas is measured cannot be applied to the task of registering the quantum of electricity consumed. Each enterprise has, necessarily and unavoidably, its separate manufacturing stations and distributing plants. They are as foreign and alien in respect to equipment and capital investment as can be imagined. Capital invested in one cannot aid the revenues or operation of the other.

The gas rate ordinance in question is a distinct recognition of the fact just noted. It deals with gas rates as a separate and distinct utility. The fact, inferable from the ordinance which deals solely with gas rates, and proved without dispute or contradiction, that electric rates have not become the

subject of municipal regulation, supports the presumption that electric rates are fair and not exorbitant. The City has like power to regulate the rates of both of these separate and distinct utilities. It was proved that there is sharp competition in the electric business. The Lincoln Traction Company is operating an electric utility, and there is also a municipal electric lighting plant. If the City desires to enter the field of commercial lighting, as it has the power to do, it can control electric service by its own competitive rates, without passing any rate ordinance applicable to private electric companies. A rate should remain in effect so long as it is fair and no longer. In such circumstances no presumption can be indulged that appellant's electric rates (not here the subject of inquiry) are exorbitant, or that they yield more than just and fair earnings on the value of the property employed in that separate utility.

Suppose electric rates are under inquiry: Can the Company, then, maintain exorbitant rates for electricity, and an excessive return on the property employed in that separate utility by showing that it has three-quarters of a million dollars invested without any adequate return in the separate service of manufacturing and distributing gas? Suppose municipal gas rates are so low and inadequate as to drive appellant out of the gas business and leave its property without income or value: Can appellant, then, add the value of the gas equipment to that of its properties used in the separate electric utility, and claim revenues from the electric service sufficient to yield a return on its idle gas plant? This, the law clearly forbids. The operation of such a rule would be mischievous and burdensome to the public. It is only the property actually employed in the particular utility whose rates are under inquiry that can enter into the appraisal for revenue purpose. Even real estate purchased prudently in anticipation of the future needs of the utility must be excluded; so closely and zealously do the courts

protect the public from extortion in the rates of each separate utility.

There is a rule, supported by some of the cases cited under this head in the City's brief, that all the revenues derived from the different branches or departments of *the same service, the product of common property used in the same service*, must be considered in any inquiry into the adequacy of the prescribed rates for that service. So far the rule is just. Appellant's revenues from by-products, and each department of its gas manufacturing and distributing service, derived by actual experience, must all be accounted for. By that rule each utility, carrying all the burdens of its particular service, is required to account for all the revenues derived therefrom. That rule, in itself, emphasizes the necessity, in the public interest, of making each utility stand separately upon its own bottom. There is no other known system by which fair rates in each separate service may be approximated.

The fact that the two services embraced in the suggestions found in the City's brief are entirely separate and distinct utilities, each depending on its own capital and separate revenues, renders application of the rule adverted to impossible in the present case. Here the gas rate is the sole subject of inquiry.

Nor is there any question about the fairness of the division of properties and expenses in the few unimportant instances in which economies of operation may be furthered by common use of offices, furniture, and the like. The proofs referred to by the City show that the gas department, by the division made, does not really bear its share of these minor small burdens. The revenues are nowhere commingled, and practically all items of operating cost are separately incurred and accounted for as distinctly and separately as if operated by different companies.

IX.

A supplemental argument to the point that the sinking fund method of computing depreciation operates as a confiscation of the property of the utility company, and is unlawful.

We here supplement, but do not reargue, point VI of appellant's main brief, that the employment by the lower court of the so-called sinking fund method of financing depreciation was erroneous, and operated to deprive appellant of a large item of the cost of service, and to inflate correspondingly the net revenues applicable to capital earnings, beyond those derived by actual experience.

At pages 57 to 61 of our main brief, we presented eleven separate tables, embodying computations which show conclusively that the sinking fund theory impairs both capital and earnings, necessarily leaves a very large per cent. of the capital wholly without return, and operates as a confiscation of appellant's properties and incomes. Since preparing that brief, other counsel employed in a like rate controversy, in which Professor Bemis has exploited the same theory presented by him in the present case, has furnished us with a tabular and diagrammatic exhibit which works out the same mathematical solutions in a simpler and more condensed and comprehensive form. We append, on a separate leaf, white prints of the tables and diagrams referred to, with acknowledgements to Mr. W. F. Douthert of the Philadelphia bar, for permission for its use. The exhibit is self-explanatory. It assumes an arbitrary property valuation of \$1,000,000, and employs a 4% sinking fund rate, somewhat less unfavorable to the utility owner than the rate of 5% employed in the present case. The exhibit is a mathematical demonstration, more lucid and persuasive than can be presented by extended or pretentious argument.

CHART

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Conclusion.

We have examined every suggestion worthy of notice, contained in the City's brief, upon the points of contest. Every disparaging suggestion is superficial, and every argument is based on a false premise or upon erroneous arithmetical calculations. The brief contains nothing of value to the court in the consideration of the legal issues raised by the record under review. The record shows, as conclusively as human testimony can show, the inadequacy and confiscatory character of the ordinance assailed. The conclusions drawn in appellant's original brief are unavoidable, and the judgment on this appeal should go in favor of appellant.

Respectfully submitted,

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